OUR ARABY

PALM SPRINGS

AND THE GARDEN OF THE SUN

J. SMEATON CHASE

To Mary Belle Kellogg
from Nellie G. Kellogg
Feb. 3. 1929.

OUR ARABY

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A VISTA IN OUR ARABY: MT. SAN JACINTO IN THE BACKGROUND

OUR ARABY

PALM SPRINGS

AND

THE GARDEN OF THE SUN

BY

J. SMEATON CHASE

NEW EDITION, REVISED AND ENLARGED

Illustrated from Photographs by the Author:

WITH A DESCRIPTIVE LIST OF DESERT PLANTS, ETC.

AND

HINTS TO DESERT MOTORISTS:

ALSO

A NEW MAP OF THE REGION
BY THE U. S. GEOLOGICAL SURVEY

PRINTED FOR
J. SMEATON CHASE, PALM SPRINGS, CALIFORNIA
BY J. J. LITTLE & IVES COMPANY
NEW YORK
1923

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Press of
J. J. Little & Ives Company
New York, U. S. A.

FOREWORD

THE LATE Charles Dudley Warner used to apply to Southern California the term "Our Italy." The territory described in the following pages may certainly be better designated Our Araby; and just as Italy attracts many travellers while Arabia appeals to few, so of the multitude of Californians and California tourists, not many, relatively, are likely to wish to visit the desert: and this is fortunate, for if too much peopled its charm would be lost.

This little book is designed to serve three ends: to invite people of the right kind—not too many—to a region that is meant for the discerning few; to help them while here to enjoy it to the full; and to please them, when they have departed, with recollections of things thought and felt, seen and done, in a tract of country wholly out of the ordinary.

It is hoped that the United States Geological Survey map, supplied in the back of the book, will be found a useful adjunct. Being the only official map yet issued which is complete of the locality dealt with, it meets a definite need. The writer has pleasure in acknowledging the cour-

tesy of the Survey in granting permission to reproduce it, and also to reprint from one of their valuable publications the Hints to Motorists which will be found in the Appendix. He is under obligations also to Professor Joseph Grinnell, of the Museum of Vertebrate Zoölogy of the University of California, for aid in revising the lists of birds and mammals.

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OUR ARABY

I. PALM SPRINGS: ITS SITUATION AND SURROUNDINGS

MOUNT SAN JACINTO stands isolated and conspicuous, like another Shasta, at the southern end of the great Sierra which forms the backbone of California. To south and west the great mountain faces a land diversified with hill and valley, farm and cattle-range, stretching to the Mexican line and the Pacific: to north and east it looks steeply down upon a strange sun-blanched land, the pale, mysterious desert. From its topmost crags, garnished with storm-wrenched pines, to the gray levels where palm-fronds quiver under torrid blasts of sun, there is a fall of over two miles of altitude within an air-line distance but three miles greater; from which it may be gathered (as is indeed the fact) that this desert face of San Jacinto offers to the view a mountain wall unparalleled for its conjunction of height and verticality—in effect, a vast precipice of ten thousand feet.

Right at the mountain's eastern foot, where the red rock-slabs rise sharply from the gray desert floor, lies the village of Palm Springs. Geographically it is a village unique. One might well call it the child of the mountain, for it lives in the mountain's protection and is nourished out of its veins. Two streams of purest water here break from San Jacinto's rocky heart, and make possible this Garden of the Sun, an oasis of pleasant life where Nature had said no life should be except the hard, wild life of her desert children—the plants and animals and Indians of a land of drought.

The village lies at an elevation of 452 feet above sea-level, well toward the foot of the long gradient which runs, smooth as a waterline for league on league, from the summit of San Gorgonio Pass—the gateway and dividing point between California Green and California Gray—down to the great depression where dreams the Salton, that pale, weird Lake-below-the-Sea which came into being (whether for the tenth or hundredth time, who knows?) some fifteen years or so ago when the Colorado River took a fancy to stretch his watery limbs wider in the sun. Bounding this gradient on the north and east runs the level wall of the eastward extension of San Jacinto's twin mountain, San Bernardino, beyond which wall there lies a twin desert, the

Mojave. The low narrow scoop, six to ten miles wide, which divides mountain from mountain, forming a westerly arm of the Colorado Desert, was marked on old maps as the Cahuilla (Ka-we′-ah) Valley, but is now known as the Coachella—a meaningless substitution—and has of late years become famous as a sort of Little Arabia, the source of the earliest of figs, grapes, melons, and asparagus, and especially of those latest and best of horticultural novelties, American-grown dates—whoever has not tried them should lose no time. In its snug elbow at the head of this valley lies our little oasis. I named it unique, and make no apologies for the word.

Walled up thus and all but overhung on the west by the mountain, what kind of landscape is it that spreads north, east, and south from Palm Springs? Strangely, it is one that fascinates by reason of its apparent lack of interest. Looked at in the large, one might even call it dreary, this gray level, treeless and waterless, dotted over with small shrubs and herbage so monotonously alike as to seem machine-made: a wholesale kind of land, all of a piece for leagues at a stretch. Yet this is the land which, if not at first view yet on very short acquaintance, lays hold of you with a charm so deep and strong that it has passed into a catch-phrase—the lure of the desert. Explain it how you may (or give it up for unex-

plainable, as most people do) there it undoubtedly is, and none but the most unresponsive of mankind can escape or deny it. Unless you are one of those it will surely "get you," given the chance, and you will find yourself, without knowing how or why, a Companion of the Most Ancient Order of Lovers of the Desert, an Order which far outranks Masonry in age, and might claim Ishmael or Esau, possibly even Nimrod, for its founder.

But I was going to describe a few main features of Palm Springs' outlook. One's attention is at once attracted to two great hills of sand which rise in smooth, dome-like contour a few miles straight ahead, that is, to the east. The larger is, I should guess, five hundred feet or so high, the smaller much less, and both probably represent outlying rocky foothills which, forming obstructions in the path of the wind that blows down the Pass, have in course of ages become submerged under the slow, all-obliterating tide of wind-driven sand. There is something queerly fascinating about these dunes. It may be partly the tricks of light and shade, the chameleon-like play of color which they exhibit; but there is some subtler quality, too. Perhaps there is aroused by the sight of that heap of sand-atoms a geological instinct akin to the sense of infinitude which is raised by the inconceivable figures

A PALM-LOVED POOL IN THE GARDEN OF THE SUN

[In Lower Palm Cañon]

of astronomy; or perhaps one's sense of curiosity is touched, and subconsciously one wonders what may be hidden under that blanket of sand that defies the eye with its suave, unrevealing outline. Whatever it be, there is something about the great dunes that stamps them strongly on the mind.

Turning to the south the view takes in a sort of bay or backwater—barring the water—of mountain-enclosed desert which may be considered as Palm Springs' private back-yard. Into it open the four cañons which are Palm Springs' pride, viz.: Tahquitz, Andreas, Murray, and Palm, the last three being the scenic cream of Our Araby, and notable especially for their remarkable display of the native California palm. It is this tract which has recently been set aside as a National Park, and a striking addition it makes to the splendid list of American Wonderlands. This bay, or pocket, enclosed on three sides by mountains, forms, as it were, a neat little compendium or miniature of the greater desert, while Santa Rosa's fine bulk, overlooking it in the background, gives it even an extra touch of pictorial completeness. And when, in winter and spring, the snowy maltese cross shines on the mountain's forehead, we of Palm Springs may be excused for indulging the fancy that our particular bit of desert is dis-

tinguished and in a way hallowed by the sacred emblem.

So wholly distinctive is the locality I speak of that an effort is needed to realize that so slight a distance separates it from the familiar landscapes of the coast country. As a matter of fact, the difference between the desert and coast regions takes effect almost instantaneously, so to speak, at the summit of the San Gorgonio Pass. Thus it occurs that from Palm Springs, well out on the desert, to Riverside and Redlands, the centre of California's finest cultivation, is but a matter of fifty-five miles, while Pasadena and Los Angeles are but fifty miles farther away, with the Pacific only a trifle more. This operates not only to make the journey from one to the other perfectly easy but also to render the change spectacular and interesting in a high degree. To breakfast late at the beach or "in town," to lunch leisurely at the Mission Inn at Riverside (which is strictly the *comme il faut* thing to do) and lounge for an hour afterwards among the famed groves and avenues of the citrus belt, and then by mid-afternoon to be arriving at our little oasis in time for a cup of tea and a desert sunset—this ought to be easy enough and spectacular enough for even the sophisticated tourist of the nineteen-twenties.

II. THE VILLAGE

VILLAGE is a pretty word, though ambitious settlements are keen to disclaim the implied rusticity and to graduate into the rank of town or city. Palm Springs has no such aims, and is well content to remain far down the list in census returns. We decline to take part in the race for Improvements, and are (so we feel, anyway) wise enough to know when we are well off. Rural Free Delivery does not entice us: we prefer the daily gathering at the store at mail-time, Indians and whites together, where we can count on catching Miguel or Romualda if we wish to hire a pony or get the washing done. Electric lights are here for those who like them: yet to some of us nothing seems so homelike for the dinner-table as shaded candles, or for fireside reading a good kerosene lamp: while if we want to call on a neighbor after dark, we find that a lantern sheds light where you need it instead of illuminating mainly the upper air. Telephones? No, thanks: we are here to possess our souls and live all day in the open. How can we do that if anybody and

everybody who so wishes can jerk us back with a telephone-wire as if we were parrots tied to a perch with a string? Cement sidewalks would be to us a calamity: we may be dusty, but dust is natural and we prefer it. After all, the pepper- or cottonwood-shaded streets of our Garden of the Sun are really only country lanes, and who wants a country lane cemented? In fact, a little mistake was made when they were named. Cottonwood Row would have been better than Indian Avenue, and Hot Springs Lane than the commonplace Spring Street.

The Hot Spring is the outstanding natural feature of our village, though not so natural as when one took one's bath in the rickety cabin which antedated the present solid little bath-house. However, the Spring itself is as natural, no doubt, as any time this five or fifty thousand years: and you may get as weird a sensation in taking your bath, and as healthful a result afterwards, as bygone generations of Cahuillas have enjoyed. The water, which is just comfortably hot and contains mineral elements which render it remarkably curative, comes up mingled with quantities of very fine sand. You may bask in the clear water on the surface of the pool, or, if you want all the fun you can get for your money, you may lower yourself into the very mouth of the spring where the mixture comes gurgling

up. This will yield you (especially at night and by candle-light) a novel and somewhat shuddery experience, though one absolutely without risk; and you will come forth with a sense of fitness and fineness all over to which only a patent medicine advertisement writer of high attainments could possibly do justice.

Our village is bisected by the Reservation line, which thus makes a geographical division of the population. Only geographical, though, for, fortunately, there has never been anything but complete harmony between whites and Indians. Something more will be said about the Indians later: here I will only remark that I, for one, could not wish for better neighbors than our Indians: I should be pleased, indeed, to feel sure that they could say as much for us. They are but few in number, forty or fifty, for the Cahuillas are scattered in small *rancherías* over a wide territory. The white population is variable. In winter and spring, when the "Standing Room Only" sign hangs out, there may be a total of three hundred or more residents and visitors (the latter much the more numerous): in the hot months residents may number a dozen or two and visitors there are none. In desert phrase, the whites have "gone inside" (i.e., to the coast), an odd turn of speech but one quite appropriate to the point of view of the man of

Big Spaces—"inside" where one is shut in and boxed up. You will understand when you have lived a little while in Our Araby.

For so small a place, the number of people who have fallen under the charm of Palm Springs, and their variety of class and kind, is rather surprising. You would agree as to the latter point if I were to begin to mention names. Wealth and fashion, as such, are not much attracted to our village: Palm Beach, not Palm Springs, is their mark: but among the fraternity of brains the word has passed about, and persons of mark are ever finding their way here, returning again and again, and bringing or sending others. But then, the importance of persons of mark in any community is apt to be overestimated; the important thing is the general quality, the average. The average with us is automatically raised by the total absence of any hooligan element, such as is sometimes in evidence on the sands of the sea-shore. To that class the sands of Our Araby do not appeal. On the other hand, the scientists, writers, painters, musicians,—in fact, all kinds of people who love quiet, thoughtful things and whose work or enjoyment lies in natural instead of artificial fields, come and share with us the wholesome pleasures and interests that are inherent in a

clean, new, unspoiled bit of this wonderful old world.

One little detail that really deserves to be named as a feature of our village is the delightful way the children have of everlastingly careering about on horseback. Tanned and possibly tattered, bareheaded and barelegged, eyes dancing and hair flying, all day long you will find our youngsters of four years and upwards tearing about, perhaps two or three together on one good-natured mount, often without saddle or stirrup but always on the dead run, utterly fearless and uproariously happy. Some of the tiniest girls, especially, are marvels of equestrian precocity. Mounted on steeds that they cannot be said to bestride, for their legs are far too short, they come galloping like young whirlwinds round the street corners, the very embodiment of health, freedom, and "having a good time." Circus managers would seize on Palm Springs as a perfect nursery of infant prodigies.

So much for the people. The village itself is a place of two or three score of unpretentious cottages scattered along half a dozen palm- and pepper-shaded streets. We do not run much to lawns and formal gardens: we live in the desert because we like it, hence we don't care to shut ourselves away in little citified enclosures. But the two or three old places which formed the

nucleus of the settlement are bowers of bloom and umbrageous greenery. Gray old fig-trees lean out over the sidewalk, while oranges, dates, grape-fruit, lemons, and trees of other sorts for fruit or ornament flourish in tribute to the memory of that wise old Scotsman and pioneer, Doctor Welwood Murray, who had the courage to plant and the patience to rear them in the teeth of horticultural disabilities.

It may be mentioned here that for several years a service has been held at sunrise of Easter morning on the rocky ledge called Sunset Point, which may be known by a large cross, placed there by an ever-helpful citizen. Of the many of these outdoor Easter morning services that have been instituted in Southern California during the last few years, surely none can accord better with the spirit of the holy occasion than our simple act of devotion, placed in these Palestine-like surroundings: just a hundred or so nobodies, possibly one or two somebodies, and a few Indians, but all friends and thankful, reverent mortals together.

There remain to be named our stores, inns, school, and church. Of these it is enough to say that they are well up to what would be expected in a community such as ours: though one of the inns might fairly assert that this statement comes short of doing it justice. There

is, further, a tasteful Rest-house raised as a memorial to the old Scottish doctor, named above, who may fairly be termed a patriarch, well nigh the founder, of our village.

III. THE INDIANS

TO SAY that the Indians make a main point in the interest of life in our village sounds patronizing, as though the whites were the natural residents and the Indians merely an incidental feature. Of course the reverse is the fact: we are the new-comers: whether "interesting" is the term they would apply to us, or some other, is open to speculation. However, the point is that they are an integral part of the charm of life in Our Araby. Their ways of life and points of view differ from ours enough to give them the attraction of novelty, while their independence and good nature render them congenial as friends and neighbors.

This small band of Indians, a part of the widely-scattered Cahuilla tribe, have lived from time immemorial about the hot spring which gives the Indian village, or *ranchería*, the Spanish name of Agua Caliente, by which the Reservation is still officially known. (There are other places of this name in California, one being the village, formerly a *ranchería* of this same tribe, now generally called Warner's Springs, in San

Diego County.) They have long been Christianized, and are numbered among the so-called Mission Indians of California, being cared for, in religious matters, by the Roman Catholic priest stationed at Banning, while administratively they are under the charge of a Government Agent, whose headquarters are at Riverside, where he is seldom disturbed by these tractable nephews of Uncle Sam.

The reproach of laziness, commonly levelled against Indians, cannot fairly be laid against the Indians of Palm Springs. The men either farm their own little holdings, or work for their white neighbors, or "hire out" on Coachella or Imperial ranches, or, at fruit-picking time, in the prune or almond orchards of the mountains. Some of them are well-to-do, with cattle or alfalfa to sell and horses to rent; besides which they have their patrimony of monumental old fig-trees, scions, it is said, of the famous Black Mission figs of San Gabriel (and you may have noticed, if you live in Los Angeles, that Palm Springs early figs do not go begging in the markets). Old Marcos is even the proud owner of a few of those original epoch-making date-palms which have opened a new chapter in American horticulture, and his Deglet Nurs have been adjudged by the knowing ones to be second to none.

Of the women, some find time from their own employments to do laundry or other household work in the village, while, fortunately, one or two still practise the old arts and are notable weavers of baskets: a basket by Dolores, wife of Francisco Patencio, who lives down by the *fiesta* house, may well be counted a prize. The making of pottery, sad to say, has ceased: the white man's cheap tinware has driven the artistic but fragile *olla* from the field. But about the sites of vanished Indian homes you will find the ground strewn with fragments, and persons with a nose for relics now and then make interesting finds of pottery or basketware that was *cached* by long-dead hands in crannies of the rocks. Relic-hunters will find interest also in the picture-writings which adorn the walls of near-by caves, and in mortar-holes deeply sunk in granite boulders, mute witnesses to the back-breaking labors of departed generations of squaws.

An experience decidedly worth while is yielded by the *fiesta* which is held in mid-winter of most years. It is a celebration of remembrance for the dead, and consists in dancing, in the chanting of traditional songs of the tribe, in feasting, and in, finally, the burning of effigies of those who have passed away since the previous occasion. The flicker-lighted gloom of the fiesta-house, the rhythmic manœuvrings, and the unearthly ulula-

PALM SPRINGS INDIANS AT HOME

tions that accompany them make a total sufficiently weird, even without such an adjunct as the eating of glowing coals from the fire by the medicine-man, a star performer from a neighboring *ranchería*. However, all this (which may well seem barbaric to the reader) must be understood as merely a belated survival from the dim old days, not by any means an indication of the ordinary manner of life of our thoroughly good friends and fellow-villagers, the Indians of Palm Springs.

IV. AROUND THE YEAR

IF THE calendar were shown in colors the Palm Springs year would begin and end in gold—the gold of cottonwoods, for it is not until well into January, at the earliest, that the yellow banners of autumn are trailed in the dust. Few but we residents see our village at that magical time when, through months of perfect weather, the desert's Indian summer links autumn to spring in a charm of blue and gold. Our visitors mostly come later, when, on the coast, the fogs and rains of February and March begin to pall. Nothing more perfect can be imagined than this demonstration of natural color harmonics, cobalt of sky and chrome of leafage mutually enhancing one another, unified by a spiritual white tracery of twig and branchlet.

By mid-February, if rains have been favorable, advance guards of the spring outpouring of flowers appear, fiddle-head and chuparosa, and, in the cañons, wild apricot. Nevertheless, the fireplace remains attractive, and extra blankets are in strong demand. Robins and meadow-

larks announce themselves, and bluebirds arrive to feast on mistletoe berries. March ensues, and night and day the air comes in gusts of delicious fragrance from the orange and grape-fruit trees. Now hummingbirds are distracted between the seductions of unlimited orange-blossom honey and the delightful cares of housebuilding in preparation for midget hummers shortly due. On the gray fig-trees, spurts of green burst out as leaves and first-crop fruit start out in life together.

Comes April, and the cottonwoods wake from their short nap and hang out green tassels before the corpulent leaf-buds can get themselves unglued. Soon the sunny air is filled with drifting cotton, which whitens our few lawns into a real similitude of snow to remind Easterners and Northerners of what they are spared. Orioles are busy weaving their hammocks under the palms: one hears all day the sleepy cry of wild doves, apparently endeavoring to hypnotize their mates: while that very poor vocalist the night-heron makes himself conspicuous during the dark hours. Now, also, the voice of the road-runner, lamenting the breaking up of family life for the season, is heard in the land by the few people who know enough of that quaint creature to recognize the sound. A transformation takes place on the mountain-sides as the

encelias open, say a quarter million yellow marguerites to the acre: the brown rock is swamped under the inundation and for a month disappears from view. This is the flower month *par excellence*. To describe our spring outburst is more than I can attempt here: I venture to hope, though, that the season of the reader's visit was, is, or will be, such an one as was the spring of 1922, when, after a winter of unusual rains, the desert was one vast luxuriant flower-bed, and when every vacant space was so overflowed with verbenas that the village itself for two months was literally *couleur de rose*.

With May, oleanders break into huge fountains of bloom, white, pink, or red. Spring is on the wane, but the month is often one of spring-like temperatures. Warm days now and then suggest a strategic movement to the coast; but don't be in a hurry: in a day or two you will be congratulating yourself on being one of the wise people who act with deliberation. I have sat in Palm Springs on the first of May and watched a snowstorm whitening the hills above Andreas Cañon. Were it only for the heavenly nights of outdoor sleeping it would be worth while to delay your going: nights when you hate to go to sleep and miss the luxury of that magnificent air; and when you wake, if at all, to return for two minutes the kindly gaze of the

stars, or to drowsily watch the scarf of the Milky Way drifting across the sky.

By the middle of June, Father Sol is settling down to his summer's work: flowers are dead and shrivelling to powder; visitors, all but a few, have "gone inside," and Palm Springs prepares to go to sleep. The Indians of course go on as usual, but the whites, except for a corporal's guard, begin to close up their houses and make for mountain or shore. Through July, August, and September the desert lies in a trance of heat, broken perhaps, though rarely, by a deluge of tepid rain when a thunderstorm breaks on San Jacinto Peak, two miles overhead. The first of October finds the back of the summer broken and the village coming to life. Returning residents meet and greet. The earliest visitors arrive, and in the hotel mail-bag inquiries for accommodation multiply.

November brings Indian summer, though vegetation gives no token of the year's decline. Our oranges, however, are yellowing, and by Thanksgiving can be not only eaten but enjoyed—more than can be said, I fear, of most of the California oranges that appear on Thanksgiving dinner-tables in the East. The stage now comes in with heavier cargoes, and in the garage you may chance to see far-travelled automobiles hailing

from Pennsylvania or Massachusetts or New York.

Even in December, days may be warm if the season be a late one, though nights will have the orthodox chill. With us rains seldom begin until the coast is getting the so-called "big storms" of the early spring months. Christmas finds us decorated with palm fronds and coral-berried pepper sprays, and Santa Claus perspires cheerfully in his furs as he dispenses jokes and toys among the junior citizens of the community. The cottonwoods, suddenly discovering that the year is running out, have hastened to catch up with the season, and the closing of the cycle, like its opening, finds this little desert oasis an oasis not of green but of gold.

V. SOME BITS OF HISTORY

FOR Palm Springs, the "mists of antiquity" begin no farther back than seventy years or so ago. It may be taken for granted that redmen have lived about the warm spring for a very long period, though there are no archæological proofs of the fact. If asked for the earliest event in our annals, we can only point, doubtfully, to the digging by the Indians of the original Tahquitz ditch, as to the date of which Big Bill Pablo tells me, "No one knows—maybe hundred years, maybe more, when the priests at the Mission taught the Indian people about how to grow things." (The present stone-and-cement ditch and pipe-line was built by the Indian Irrigation Service in 1911 as an improvement on the uncemented ditch which had been in use for many years previously. The original ditch referred to is of yet earlier date, and may or may not have had the same location.)

The time of the coming of the first white man is doubtful, too. It may have been as far back as 1774, when Captain Juan Bautista Anza led the first overland expedition from Sonora to the

coast; but it is not certain, though long considered so, that the San Gorgonio Pass was the route of the party across the mountains. An interesting bit of conjectural evidence exists in the form of a rusty lance-head, found many years ago and now in the possession of Mrs. Austin G. McManus, which *may* have come from the *lanza* of one of that early party of California tourists. Coming to the days of the great gold rush, three-quarters of a century later, we may well suppose that a few of the adventurers chanced on this route, though practically all of the southern travel was by way of the San Felipe, or Warner's, Pass.

It is not until 1853 that Palm Springs becomes definitely "of record." In that year a Government survey party under Lieutenant Williamson, having come over the San Gorgonio Pass, report arriving at "two large springs of water rising in the bare plain not far from the mountain. One of these springs was warm and forms a pool nearly thirty feet in diameter and three to four feet deep. The cold spring is not quite so large, and is only ten feet distant from the other. . . . This place was evidently a favorite camping ground for Indians. When we arrived many Indian boys and girls were bathing in the warm spring, and a group of squaws were engaged in cooking a meal for a party returning

from a great feast held near Weaver's Ranch. A growth of rushes forms a narrow margin of green vegetation around the spring and its outlet. Willows and mesquit bushes grow there also, and I found a young palm tree spreading its broad, fan-like leaves among them." The reference is undoubtedly to this spot, although the cold spring is not in evidence. Incidentally, the statement as to a single palm tells us that the picturesque group of palms that does its best to hide our ugly bath-house cannot claim any interest of great age. Twenty years later a definite link with the world was made when our oasis, under its Spanish name of Agua Caliente (signifying a hot spring), became a station on the stage-line which, crossing the Colorado River at Ehrenberg, followed approximately the present route for road travel by way of Mecca and Blythe. The little adobe building on our main street, facing the grounds of the Desert Inn, is dubiously reported to be a relic of the old stage-depot.

But it was not until the very early '80's, roughly coincident with the opening to regular traffic of the Southern Pacific Railway, then newly built across the desert within a few miles of the village, that the first white *settler* came upon the scene. There are two or three shadowy claimants for this title, but the evidence seems

to point to a certain Jack Summers, who, I find, owned at that time a ranch in the foothills above Cabezon, but as to the nature of his business at Palm Springs even rumor, that gossipy dame, is silent. Among other first arrivals I find two whose names are of strong Dutch flavor: one Vandeventer, who kept a store, and is commemorated by the Vandeventer Trail leading to the land where later he settled in the mountains to the south; and a certain Van Slyke, who did a good work for Palm Springs when he built, or perhaps only began the building of, the house now known as the McManus adobe, which, with its simple lawn, overshading cottonwoods, and orchard of fragrant oranges, remains the most artistic and reposeful dwelling in the place, however much some of the newer ones may outclass it in the attractions of modernity.

Some one has said that you can never go into the engine-room of a steamer without meeting a Scotch engineer. The remark would be equally true of any other place where man has penetrated, and it is no surprise to find two Scots "in at the birth" of our little village on the California desert. Mr. J. G. McCallum and Doctor Welwood Murray might well be called the patriarchs of Palm Springs. About the year 1883, the Indians, whose little holdings until then were scattered quite promiscuously, were

all placed on the Reservation land, the boundary line of which is the pleasant though dusty road named Indian Avenue. Whether this was done by fair means or foul I cannot say: in view of Indian history, and with all due respect to the people at Washington, such transactions are fairly open to suspicion. The land west of the Reservation line was thus left open for the whites. In 1885, or thereabouts, a considerable tract was purchased by Mr. McCallum, and was planted in orchards of oranges, apricots, figs, and grapes, water having been brought across the desert in a fourteen-mile ditch from the Whitewater River—no small piece of work, and no trifling evidence of faith in the future of the settlement.* Little of that first attempt at agriculture can now be traced, but it is to this same pioneer that we owe the pepper trees that give charm to our streets. At the same time, Doctor Murray was establishing a hotel and health-resort adjacent to the hot spring, on a five-acre plot which he planted partly as orange orchard

* It is worth mentioning that as early as 1890 Mr. McCallum was corresponding with the Department of Agriculture with regard to the cultivation of the date-palm at Palm Springs. That was well before the first experiment in the new industry was made in the adjacent Coachella Valley, which has gained the renown of being the birthplace and "Home of the American Date." In recent years the Palm Springs locality has proved itself fully as well adapted to date cultivation.

and partly with ornamental shrubs and trees. (This is the luxuriant green and shady place just across the main street from the Desert Inn, the long low building which faces Indian Avenue being the old hotel—no longer such.) In spite of a six-mile drive by buggy or buckboard across the wind- and sand-swept desert, the hotel proved a great attraction, and was the means of bringing hither not only chance visitors but the necessary few "permanents" to become the nucleus of the modern village.

Reference must be made to a short-lived rival settlement a few miles to the south, named Palmdale, which was started about the same time that the development of Palm Springs began. Those were boom times in Southern California, when Great Expectations were the order of the day. Notwithstanding the efforts of its promoters, which extended even to the laying of a dozen miles of narrow-gauge railway connecting with the Southern Pacific, the enterprise came to a speedy and conspicuous end, mainly through a mistake of judgment in planting unsuitable "late" varieties of fruits, instead of early-ripening kinds which could mature their crops before the summer sun reached the shrivelling point. The experiment was abandoned, and Drought resumed her ancient solitary reign. As for the Palmdale Railway, after operating for

one much-heralded trip, the toot of its baby locomotive was heard no more. Its two cars, already old in service on a San Francisco street-car line, were left stranded in mid-desert, where they long remained displaying to a rare, astounded spectator their strange insignia, "Market Street." The ties are doing duty today as good solid wall material in some of our village houses. A row of wind-beaten peppers and the crumbling fragments of an adobe house still announce to the wanderer among cactus and greasewood brush that he stands within the limits of Palmdale: and now and then the wind casually lays bare a length or two of rusty railway-iron—an exhibit in the long-drawn-out dispute of The Desert *versus* Man.

Simultaneously with the serio-comic career of Palmdale, and a short distance to the west, a ranch project on a considerable scale was started under the ambitious name of The Garden of Eden. Certain differences strike one in comparing the locality with its Scriptural namesake: one is a serious discrepancy as regards means of irrigation, for whereas the original Garden was watered by four large rivers, this one depended on the little Andreas Cañon stream, and that belonged to the Indians. When the Government protected the latter in their rights, the fate of the venture was sealed. The site may be known

by a row or two of hard-bitten palms, a mile or so out from the mouth of Andreas Cañon. When I mention that the proprietor had installed, as caretaker, an individual by the name of Adam Weed, it will be seen that, apart from the water difficulty, the scheme was bound to fail: Adam would do well enough, and might even seem auspicious, but Weed clearly is impossible for a gardener, and that alone would have blasted the hopes of the enterprise.

As for Palm Springs, its history thenceforward needs little telling. It has grown, at first very slowly, lately more rapidly, but always solidly and on its merits. In 1909 the Desert Inn opened its doors, with a standard of hostelry service that might well be taken to signify a new era. (In the year named, our white residents could be counted on one's fingers, with a digit to spare, and winter visitors ran from a dozen to a score. Now—1923—white residents number about a hundred, while our winter population amounts to perhaps four times that figure.) With the improvement of roads, a twenty-minute run by auto-stage to Whitewater took the place of the tedious two-hour drive with horses at walking pace to Palm Springs * station. It is true that since the first edition of this little book was printed we have succumbed to the electric

* Since January 1, 1923, this station is named Garnet.

lights which, with their uninspiring adjunct of poles, poles, poles, formerly we scorned; but on the other hand, by excellent luck, the State Highway, which threatened to bring an ever-increasing roar of automobile travel through our quiet streets, has been diverted—averted is the better word—to the north side of the valley, leaving Palm Springs with no more than its own small quota of traffic racket to put up with.

"Happy is the nation that has no history," said some philosopher. I shall not try to forecast the future of our small community: we are content as we are, and in a general way one may say, perhaps, that the less history there is in store for us, the better we shall like it.

VI. PALM CAÑON NATIONAL MONUMENT

AFTER several years of more or less persistent effort on the part of a few public-spirited persons, a bill was passed by Congress in July, 1922, setting aside as a National Monument a tract which includes the lower parts of Palm, Murray, and Andreas Cañons.* This is a useful bit of work, signifying, let us hope, the preservation of an area of strikingly fine wild scenery, adorned with groves of stately trees of a rare native species, from the increasingly urgent danger of fire and vandalism. At the time of writing, however, the deliverance is not assured, for the tract is not Government land but belongs to the Indians, being part of the Agua Caliente Indian Reservation: and as the bill carried no appropriation, it devolves

* The site is described in the Act as: The west half of the southwest quarter of section two, the southeast quarter of section three, all of section ten, the west half of the northwest quarter of section eleven, all of section fourteen, all in township five south, range four east, San Bernardino base and meridian, containing one thousand six hundred acres.

THE PALMS OF OUR ARABY

[In Upper Palm Cañon]

upon citizens in general to provide the money, in an amount to be determined by the Secretary of the Interior, for purchase of the Indians' rights. This, it may be hoped, will not long delay the bill's coming into operation.

During the last few years much has been written in newspaper and magazine articles about the locality in question, Palm Cañon especially. Briefly stated, its charm consists in the startling combination of rugged rocky gorges and cañons, essentially savage and desert-like, with the arboreal grace of tall, tropic-seeming palms growing in native loveliness beside a snow-fed gushing stream. Botanists find added interest in the rarity of the palms, and in the cacti and other desert growths, whose grotesque shapes give contrast to the clean, arrowy forms of their aspiring companions. If the effect of the whole were to be summed up in one word, I think the word would be, not grandeur, nor even beauty, but *strangeness* to a notable degree.

If I may insert here a personal recollection, let me relate the circumstances of my first sight of Palm Cañon. One summer several years ago a friend and I, in the course of a two months' horseback trip through the back-country, found ourselves wandering, out of our bearings, in the rough mountain territory where Santa Rosa and San Jacinto Mountains run together. Provi-

sions, water included, had become decidedly scanty, and our pressing business was to get down with celerity to Palm Springs as a source of supplies. After some blundering we struck the head of the Vandeventer Trail, and plunged down the steep slope with ill-judged joy. Within a hundred yards the trail had vanished, wiped out by a recent cloudburst. The next half-dozen hours were spent in dragging our reluctant steeds almost inch by inch down the breakneck mountainside under a sizzling sun and with canteens nearing the final teaspoonful. Towards evening we reached a coherent bit of trail, and after a mile or so, suddenly, at a bend, saw below us a winding line of waving green palms. It was magic, or miracle, nothing less. We reined up, and for half a minute simply stared: then with one impulse pulled off our hats and swung them in the air and shouted—just incoherent noises—for as long as we could find breath. Undoubtedly our horses thought we had simultaneously gone crazy.

It was the upper extension of Palm Cañon that we so eagerly gazed down on. Sundown found us at desert level, drinking from cooling pools under rustling palms and cottonwoods, while our lean nags swelled out on bermuda and water-grass to a point that threatened their getting foundered. Later we mounted and rode on

leisurely under a marvellous moon to the village, which we found sunk in summer torpor, with everybody gone "inside," and Tahquitz ditch as dry as a mummy. A half night's sleep and a hasty refitting gave us all we wanted of Palm Springs in July, and we hastened on to complete our tour amid the comfortable fogs of the coast.

While everyone may not be privileged to see Palm Cañon under such excellent conditions as those of my first visit, yet I have little fear of being pronounced over enthusiastic by any reader who has viewed or will view this remarkable piece of quasi-tropic scenery which Nature has dropped, as if by accident, just within the borders of our country.

VII. AMUSEMENTS

A QUESTION that arises in many persons' minds when one speaks of the desert as a place of any attractiveness is—But what can there be to do there? It is a natural question, too, for to most people the desert signifies only a region of dreariness and horror, a mere waste spot marring the earth's wholesome fertility and beauty. That, however, is a total mistake, one of those conventional delusions that are based only on generations of popular misconception. Only one or two hundred years ago the forests and mountains in which we now delight were thought places of dread and ugliness. People simply hadn't caught the idea; and today, as regards the desert, a few people are just beginning to catch it. Essentially, the desert is Nature in her simplest expression. Has it come to this—that Nature must be spiced up with amusements before we can take pleasure in her? Surely space, quietude, and freedom are fine things: solitude can be magnificent: loneliness need not scare us as if we were lost kittens.

However, as it happens, there are plenty of

ways of amusing one's self actively on the desert. The most popular at Palm Springs, undoubtedly, is riding horseback, with or without the adjunct of a picnic. Our Araby is ideal for this sort of thing. The " 'ard 'igh road" is all right for the automobile, which indeed has coolly claimed it for its own; but the glory of horseback is the cross-country feature, and here you have it unalloyed. The free fenceless desert stretches before you to the horizon, and wherever you guide your horse, something new, strange, or wonderful calls constantly for notice—new plants and animals, new colors, new shapes (perhaps also new thoughts). Thus, there are few Palm Springs mornings when you will not see some gay party cantering off on the wise Indian ponies bound for Palm Cañon, or Andreas, or the dunes; or, maybe, starting more leisurely with saddle-bags and blanket-rolls on the longer trip down to the Salton Sea, or into the Morongos, or up the Vandeventer Trail to Piñon Flat, or by the Gordon Trail to Idyllwild in the pines.

For those who are wedded to their ease and their autos plenty of inviting resources are open. Good or practicable roads have been built to several of the near-by cañons—notably to Palm Cañon, the favorite—and connecting closely with Palm Springs is the main stage-road across the desert, by which you may go down the valley

as far as you like—or on to New York, for that matter. All the valley towns are on that road—Indio, Coachella, Thermal, Mecca—and from it one has access to all other roads and may explore whither and what he will—date-gardens, fig-groves, the haunts of the earliest grapes, melons, and asparagus: or may run down beside the Salton Sea to Imperial Valley, the land of cotton, and "the line," beyond which lies the land of revolutions, distressful Mexico.

The time has come, too, when flying must be counted in when one thinks of ways and means of amusement or of getting about. There is not, of course, much to be said yet on this score, but it may be remarked that Our Araby is not lagging behind the rest of the world, and already is critical of the pilot who fails to bring his "bus" neatly to earth regardless of cactus and creosote brush. Certainly it would seem that the spacious, level desert is the very model of a natural airdrome, and I look to see aëronauts, professional and amateur, taking Nature's hint and exploiting these advantages. Now that the piece of country comprising Palm Cañon and the picturesque localities adjacent thereto have become a National Park, it would not be surprising if, before long, provision should be made for air-travel to and about the tract. The American tourist expects to have Nature served up in

up-to-date fashion, and Uncle Sam may be trusted to comply, in due time.

Under the next heading I outline some of the favorite trips, and the map, it is hoped, will be of use in planning and executing them and suggesting others. There is, so far, a glorious lack of "No Trespassing" signs in Our Araby: our cañons and palm-groves are not yet roped off and adorned with brusque notifications to "Keep Out"; but this state of things cannot be guaranteed to last for ever. It is the age of barbed wire, and even the desert cannot hope to escape it.

Coming now to the more specific forms of amusement, we have, for those who must be up to date, "the movies": not the commonplace side of the great modern pastime, the sitting in a "palace" and watching the reeling off of pictures on a screen, but the more exciting first-hand experience of seeing them made, the thrill of the real thing, flesh and blood (with paint and powder thrown in). In the last few years Palm Springs has become headquarters, so to speak, for Algeria, Egypt, Arabia, Palestine, India, Mexico, a good deal of Turkey, Australia, South America, and sundry other parts of the globe. Wondrous are the sights and sounds the dwellers in Palm Springs are privileged to see and hear when "the movies are in town": won-

drous the "stars" that then shine in broad daylight on us; wondrous the cowboys, cavalcades, and caballeros, the tragedies and feats of daring, the rescues and escapes, for which our dunes and cañons provide the setting. The quiet village becomes in fact a movie studio for the time, and the visitor whose ideal is "Something doing every minute" has then little reason to pine away with *ennui*.

Moving pictures remind one of the other and, as a rule, less spectacular kind. Our Araby, with its marvellous display of tone and color—tone the most elusive, color the most unearthly and ethereal—is a land of enchantment to the painter, and its fame has spread from one to another until, now, every winter and spring sees painters of note studying these desert landscapes, so fascinatingly different in their problems of conception and handling from anything that commonly comes in the artist's way. It looks more than likely that by ten or fifteen years from now a school of painters will have made Our Araby their province, just as now there are the Marblehead and Gloucester men in the East and the Newlyn men in England. A forerunner of the group I forecast has already been working for many years with Palm Springs for his headquarters, Mr. Carl Eytel, whose knowledge of his field has been earned, as it

were, inch by inch and grain by grain, and whose conscientious work gives a truer rendering of the desert than do sensational canvases of the popular Wild West sort.

Naturally, radio, the newest and most "broadcast" of scientific amusement-fads, is not wanting, even in this desert community. After all, we are but a hundred miles or so from Los Angeles, proud exponent of "the latest" in every form of up-to-dateness. So at Palm Springs you may "listen in" to your heart's content every evening, and catch whatever wisdom or beauty there may be in our modern Voices of the Night.

Following the lead of a few other communities of individuality, such as Carmel-by-the-Sea, an annual outdoor play has been instituted. The plays are intended to be appropriate to the place, for instance, representations of local Indian legends, or the like. They are performed on the natural stage, the desert itself, a very convenient as well as spectacular spot being close at hand in the rising ground at the entrance to Tahquitz Cañon. Our Indian talent, as well as that of white residents and visitors, is freely called on, and responds to excellent effect. The enterprise was started in 1921 under the auspices of Mr. Garnet Holme, an experienced organizer of *al fresco* plays and pageants, when Mary Austin's play, "Fire," was given

with good success. The following year another drama based on local mythology was offered, and was received with so much interest and applause that these performances will probably be continued as a yearly event.

The person must be very insensible to natural interests whose curiosity is not aroused by the markedly distinctive vegetable life which the desert offers to the view. From the moment that your train or car begins to run down-grade on leaving Banning the fact is plain that you are, botanically speaking, in a new world. Gray, the livery of the desert, largely takes the place of green; stunted forms and bizarre shapes notify you that wholly different conditions here reign. Though you may have no leaning toward botany as a science or a hobby you will hardly fail to be interested by the novel objects that surround you, and are likely to find yourself botanizing mildly before you know it, if only to the extent of learning the name of the cactus that scratched you, or whether it was a mesquit or a catclaw that tore your clothes. The cacti alone are "worth the money": the biznaga, for instance, on close acquaintance is a most engaging fellow, and seriously, no one should go through life without interviewing a cholla. A tree that is as green as grass, yet has no leaves, is worth one's notice: so is one that is total gray and pricklier

than an armful of hedgehogs, and another that bears for fruit a neat imitation of a handful of screws.

But it is when the Great Spring Flower Show comes on, especially if the rains have come just right, that our Garden of the Sun shows what it is capable of botanically. In January one or two early-waking plants, such as crimson beloperone and yellow bladder-pod, modestly start the show. February brings the wild heliotrope and the first hint of the glory of the verbenas, with clouds of wild plum in the cañons. March is a steady *crescendo* of color, and by mid-April the riot is on and Flora is emptying her lap over the desert in cascades of multi-hued bloom. On the levels, pools of rosy-purple verbenas spread out and run together into lakes; the mountain slopes, built of slabs of uncompromising rock, by some magic contrive to send out myriads of golden blossoms of the incense-bush; the cañons turn into mazes and tangles of flowering rarities that go to the head of the most experienced botanist. Now is the time to notice how admirable even a cactus can be when Spring gets into its blood; you will hardly match those silky cups of purple or cerise in greenhouses of millionaires. The ocotillo, too—where will you find anything floral that is finer in its way than that flaming scarlet tongue? It is the desert's own fierce

flower, not on any account to be missed, and well worth the ride down to Deep Cañon, even if you found nothing else worth your notice, which would be strange indeed.*

There is plenty of interesting matter here, too, for those to whom animal life appeals. For bird study, especially, this locality offers exceptional facilities, for the San Gorgonio Pass is the great migration highway for a large region, and the Palm Springs oasis, lying at the foot of the pass, forms a natural stopping-place for the winged travellers. It is for this reason a favorite station for bird-men, as it is for naturalists in general. Beetle-men and butterfly-men, mouse-and-gopher-men, and devotees of all sorts of zoölogical ramifications with alarming names spend rapturous days in Our Araby, collecting, studying, and classifying, with ever in view the thrilling chance of coming upon something new—a kangaroo-rat with tail measurement three millimeters greater than any yet recorded in the halls of science, or some phenomenal development of the maxillary arch in a short-nosed pocket-mouse. Such triumphs have in the past shed lustre upon zoölogically-minded visitors to Palm Springs, which already has a gopher and a

* Under the heading of *Flora and Fauna* will be found a list of all the desert plants likely to be observed, with brief descriptions which will aid in identifying them.

ground-squirrel "named for it":—why not again?

Suspicious people, noticing that I have said nothing as to reptiles, may ask "What about the snakes?" Here comes in another popular misconception, the idea that the desert swarms with rattlesnakes, sidewinders, and Gila monsters. The fact is that rattlesnakes are certainly no more numerous on the desert than in the coast or mountain regions: I think on the whole they are fewer here. As for the sidewinder (which is simply the desert's special form of rattlesnake), in several years' experience I have seen but two, one of which was dead when found, while the other was hailed with rejoicing and carried home tenderly in a tomato-can (being needed for photographic purposes), having been an object of daily search for two or three months. The Gila monster, rare at best, is never seen in or near this part of the desert. Ordinary lizards we have in plenty, but they, of course, are wholly harmless, even friendly and amusing. The chuckwalla, with his alligator look, may not be charming, but need cause no alarm to anything much bigger than a house-fly.

But this is aside from the matter of the amusements Our Araby offers her visitors. A few words as to sporting possibilities will not come amiss to lovers of rod and gun. Fishing will

hardly be looked for on the desert: indeed, the mention of the rod may seem like a rather futile joke. Not quite so, however: for ten miles from Palm Springs is Snow Creek, which comes down from San Jacinto Mountain (debouching about opposite Whitewater Station) and offers fair trout-fishing, as does also the stream in Whitewater Cañon, a few miles away across the valley from Snow Creek. This, I must confess, exhausts the fishing possibilities of Our Araby, unless one is minded to try what can be done with the Salton Sea, where some kinds of coarse fish, principally mullet, are plentiful and seem to give good sport to the gulls and pelicans.

There is more to be said for the gun, however.* Quail are numerous, and give excellent shooting when in season. On the open sandy levels the desert or Gambel quail in good coveys will be found in the vicinity of mesquit thickets: in the cañons the valley species exists in fair numbers: while at higher altitudes the mountain quail appears. Doves may be had anywhere near water by gunners who care to shoot those trust-

* It should be noted that shooting on Indian Reservation land (except by Indians), and on land included in the Palm Cañon National Monument, is strictly prohibited by law. There is a good deal of Reservation land in the neighborhood of Palm Springs besides that upon which the Indian village is situated. Hunters should inform themselves as to the boundaries of the prohibited areas.

OFF FOR THE CAÑON

ful creatures. A few snipe and duck can be found if one knows where to look for them, but, naturally, such spots are few and far between in Our Araby. The duck-hunter who cares to go so far as to the Salton Sea, however, may expect good sport.

Rabbits—jack and cottontail—are a matter of course, though not so much so as in days gone by. Nowadays one may tramp a whole morning in the Palm Springs locality and hardly empty a barrel at a bunny. Whither they have gone is rather a mystery. Yet I do know the spot I should make for if an urgent demand for cottontail-stew should arise suddenly within me. No, I shall not name the place: that is a little secret between the coyotes and me.

Coyotes and foxes, by-the-by, as also wildcats and mountain-lions, should perhaps be mentioned, but the first-named two are hardly game, while the others are only possibilities of cañon camps. Deer, however, are more than a possibility in some desert localities, though not, of course, on the open low levels. Piñon Flat, reached by the Vandeventer Trail, and a good day's trip from Palm Springs, is quite good deer country, and, incidentally, an interesting bit of territory to explore, with or without gun or rifle.

Two other animals that come in the "big

game'' category may be named, though one of these, the antelope, has passed into history so far as Our Araby is concerned. A few antelope may linger on the stretches of almost untravelled country bordering on the Mexican line, but the chances are slight of this fine creature being ever again reported from the Colorado Desert. The other animal is the mountain-sheep (bighorn), which ranges in all the desert hills and cañons, but is not to be counted for shooting purposes, being strictly protected by law, with no open season. I said strictly, but must add—O that it *were* strictly! for it is but too certain that since the appearance of the automobile (the worst foe of wild game everywhere) on the desert, the sheep have fallen victims to illicit shooting to a terrible extent. Parties of ''sports''—the fellows who bear the same relation to sportsmen that ''gents'' do to gentlemen—lolling at ease in high-powered cars, now invade every part of the desert where a road leads to some remote mine or prospect, and blaze away at anything that moves, in mere intoxication of blood-lust: with result of many a wounded animal, ram or ewe just as it happens, dragging itself into some haunt inaccessible to man, there to lingeringly perish:—the ''sport'' making the most of his contemptible feat by jubilant assertions of ''Anyway, I know I hit him—saw him fall.''

Beyond the active amusements, so to speak, which I have named, there are some immaterial pleasures to be enjoyed in Our Araby which, I venture to think, remain long in the memory of those who come here. It may sound commonplace to talk of sunset colorings and sunrise panoramas, but anyone who has watched the sunset light on the Morongos from the rocky point that overlooks our village will allow that it is a revelation of Nature in a mood of utmost loveliness. Nowhere as on the desert will you experience what I may best call the spirituality of color, beauty in sunset hues so extreme that it affects one with a sense of pathos, even of solemnity, like the innocent blue of childhood's eyes. Heavenly is a well-worn term, but here it comes to one's lips instinctively: such perfection in color seems not of earthly kind.

The sky of the desert is well worth studying at other times than the sunset hour—for instance, at the moment when the sun comes striding up in inexpressible magnificence of power. Over this Garden of the Sun he rises morning after morning in such splendor as you will never see but in the desert, for here no mists or earthly exhalations dim the flashing glory of his horizontal beams. It is then that one grasps the true meaning of that everyday word, the sun, and realizes him at last for what he is—a Flame, in-

conceivably vast, ineffably pure, unutterably terrible.

For those who delight in cloud-form and sky-scenery, no area of sky that I know approaches in interest that which stretches from the southern extension of San Jacinto Mountain eastward to Santa Rosa Peak. In the rainy season this tract of air forms the very frontier of the opposing meteorological forces, where day after day one may watch the battle between Rain and Drought fought in fashion more spectacular than one sees it elsewhere. Some particular interplay of air-currents, combined with and perhaps arising from the configuration of the land below, give rise to a remarkable diversity of cloud conditions. Above Santa Rosa there will hang for days a vast banner of vapor like the plume that curls from the lip of a volcano, while in the upper air beyond and above it, cirrus, stratus, and cumulus merge and evolve in ceaseless manœuvres. I know of no other such "cloud-compelling peak" as this, on which another admirer and I have ventured to confer the title or degree of *Santa Rosa de las Nubes* (Santa Rosa of the Clouds).

Other aërial phenomena occur in these desert skies, some of them so unusual that one may suspect one's eyes of playing tricks: as, for instance, I did, one evening when riding from

Andreas Cañon soon after sunset. The western sky was hidden from me by the high wall of mountain on my left; but suddenly I saw on my right—that is to say, *in the east*—the well-known effect of radiating beams of light, frequently seen when the sun is at or near the horizon. I reined up and stared: yes, there it was, plain, even vivid. What was up? Had west become east, and east, west? Or couldn't I tell one from the other? These were alarming thoughts, but soon I realized that the desert was up to one of its tricks: what I saw was the sunset *reflected* by the eastern sky.

And then there is the night. It may seem odd to speak of sleep under the head of Amusements, but such sleep as one gets on the desert fairly ranks as enjoyment, so it is much the same. Few people know what night at its best can be: the desert is the place to learn it. Calmness, quietude, restfulness, as a rule very relative terms, here approach the absolute. We speak of balmy sleep, and sometimes think we get it in a bed under a ceiling; but that is a mistake. Speaking for myself, the finest sleep I ever enjoyed was when for a month or so I spread my blankets on the bank of the Tahquitz ditch. With two or three inches of dry brush for mattress, the air cool, still, and sweet with fifty herby essences, the moon and stars stealing by on tiptoe so as not

to wake me, and Tahquitz telling strange old bits of earth-lore under its breath within a foot or so of my ear—that was sleep as sleep was meant to be. And then to wake up to a desert sunrise! You positively should try it.

VIII. TRIPS TO THE CAÑONS AND OTHER NOTABLE POINTS

IT IS NOT possible in this small book to describe in detail the many points of special beauty or interest which lie within the range of Palm Springs. Here, however, are given brief notes regarding the spots most worth visiting, such as will serve to outline their particular features and to explain how they may be reached. (In the latter connection, attention is directed to the map which will be found inside the back cover.) For convenience I list them in alphabetical order.

N. B. As regards excursions involving crossing the open desert (for instance, the trips to Seven Palms, Thousand Palm Cañon, the Sand-dunes, the Devil's Garden, etc.) it is advisable to choose one's day with special reference to wind conditions. On days of strong wind it may easily prove that the pleasure is outweighed by the discomfort.

Andreas Cañon, the most interesting and accessible part of which is included in the Palm Cañon National Monument area, is four or five

miles south of Palm Springs, on the way and a little to the west of the road to Palm Cañon. A fair automobile road goes right to the cañon-mouth. There are fine cliffs of the palisade sort, some caves with Indian relics, and many palms, one group of which is remarkable. There is a stream of pure mountain water, and some lovely cañon scenery. A divergence may be made on the return trip by taking a trail on the north side of the cañon, which leads up to the Pines and Palms Trail and gives a splendid view of the palisade cliffs and the desert: then descending the last-named trail, which connects with the regular Palm Cañon road. (See Pines and Palms Trail trip.)

Cathedral Cañon is about seven miles southeast of Palm Springs, opening to the west of the main road down the valley. There is a fair automobile road into the cañon, but to reach the narrows a rough walk of two miles farther is required, which by most people would not be thought worth while. There are a few palms and sometimes a little water.

Chino Cañon is the wide-mouthed cañon which opens to the west of the main road a mile or two north of Palm Springs. No practicable road runs into the cañon, but a trail (formerly a wagon-road) may be picked out, roughly fol-

lowing the pipe-line. In the neck of the cañon there is a *ciénaga* (marshy meadow) and a fine grove of cottonwoods: also a group of palms beneath which is a warm spring which makes a luxurious natural bathing-place: adjacent is a stream of cold mountain water. Near the point where the cañon narrows to a gorge there is a cave that is worth visiting; and continuing one comes to a cliff of about 5000 feet sheer. Fine views of the desert are obtainable. If the return trip be made by moonlight a weird effect may be observed, produced by the reflected light from the mountains on either side. Time needed, two or three hours each way, as the trail is rough.

The "Coral Reef." This is, of course, no coral reef nor is it anything like one. It is simply a part of the mountain wall on the southwest side of the Coachella Valley, some twenty-five miles from Palm Springs and about six miles southwest of the town of Coachella (the same from Indio). The old Indian road to Toro and Martinez passes near the "reef." The land is here below sea-level, and the water-line of the ancient sea is plainly marked on the foot of the mountain. The "coral" is a deposit of calcium carbonate left by the water. The likeness to coral is not really close. There are ranches in the neighborhood.

Deep Cañon is a main cañon of Santa Rosa Mountain, reached by following the main road down the valley for thirteen miles from Palm Springs, when a road will be found which runs some distance into the cañon, though not so far as the narrows, which are five miles up. Botanists will find this a good piece of country: there are some splendid palo verdes, cacti are in fine display, and ocotillos and agaves are numerous. Beyond the narrows the cañon is rocky and romantic. The walls are strikingly high and steep, and a few palms are scattered along the stream.

The Devil's Garden. This is a tract of open desert mesa about eight miles north and slightly west of Palm Springs and not far from Whitewater, extending in fact nearly to the edge of Whitewater Cañon. It is a natural cactus garden, where many species of cacti are associated in what amounts to a thicket of these odd vegetable forms. A trip to it makes a pleasant cross-country horseback excursion; or it may be reached by automobile *via* the Whitewater Ranch and the Morongo Pass road, say fifteen miles. (There are two bad sandy stretches of the road beyond Whitewater.) Time needed, about three hours horseback or one hour automobile each way.

The Garnet Hills are a ridge of gravelly ground just to the east of Garnet Station, which is about six miles due north of Palm Springs. The old sandy road to the east of the stage-road (a continuation of Indian Avenue) should be taken. There is nothing of special note here, but the place offers a convenient objective for a short horseback trip, as well as fine views of San Jacinto and San Bernardino Mountains and the open desert. Garnets are not hard to find, but none of good quality need be expected. Time needed, about two hours each way.

The Gordon Trail is described under the name of the *Pines and Palms Trail.*

Hidden Spring Cañon is a secluded spot in the foothills of the Orocopia Mountains. This entails a longish trip, the distance being about fifty miles. The route is down the valley by the main road as far as Mecca (thirty-eight miles), thence three miles east on the Blythe road, then two miles southeast following the Power-line, then north up the wash into the cañon (this is a hard pull for automobiles). Splendid near outlooks over the Salton Sea are obtained, and the cañon is remarkable, resembling Painted Cañon in formation and coloring. It contains a score or so of palms, also a spring of fair water,

to reach which one must crawl on hands and knees through a narrow passage-way. Owing to slow travel in places, this trip can best be handled as an over-night-camp trip, though a strenuous one-day will cover it.

REFER to "Salton Sea" and "Painted Cañon" trips, in same general locality.

Magnesia Spring Cañon opens to the southwest upon the main valley road near Frye's Well, about twelve miles from Palm Springs (being the next cañon to the northwest of Deep Cañon). It is quite easy of access, the approach being sandy instead of bouldery, but automobiles may find difficulty after leaving the main road (at a point opposite Frye's old house). At the narrows, about two miles from the mouth, there are fine cliffs; also a little water, not of the best quality, yet drinkable; and a rock-bound pool large enough for a miniature swim. In the upper cañon there are a number of palms. This cañon makes a pleasant objective for a picnic, or for a one or two days' camping-trip.

Mission Creek Cañon is a cañon of San Bernardino Mountain opening northwesterly to the north of Painted Hill, which is about three miles north of Whitewater Station. The distance from Palm Springs is about fifteen miles. The

route for automobiles (twenty miles) is by way of Whitewater Ranch and the Morongo Pass road, keeping to the west at the forks: on horseback one may take the old sandy road to Garnet Station, continuing north by a road which skirts the Devil's Garden (q. v.). The cañon has some remarkable rock colorings and formations, with evidences of volcanic action. There are two or three ranches belonging to Indians and whites: also good and abundant water. Time needed, one day by automobile: one night out by horseback.

The Morongo Trip. I use this term to designate an excursion, of whatever length one likes, into the mountains that face one looking across the desert to the north and east from Palm Springs (actually a spur of San Bernardino Mountain, but locally known as the Morongos). The route for automobiles is by way of Whitewater Ranch, branching off thence to the road running northeast to the Morongo Pass. This leads by way of Warren's Ranch ("Chuckwarren's"), Warren's Wells, and Coyote Holes, to the oasis of Twenty-nine Palms, on the southern edge of the Mojave Desert. A worth-while loop is made by turning south at the signboard (six miles beyond Warren's Wells) marked "Keyes Ranch, Quail Springs," etc.: another signboard

at the Keyes Ranch will direct you to Twenty-nine Palms via Gold Park. A great variety of desert scenery is thus met, including exceedingly striking rock formations and those botanical curiosities the Joshua trees, as well as fine views of the great peaks, San Jacinto, San Gorgonio, and Santa Rosa. The trip may be prolonged from Twenty-nine Palms into a circuit by way of Dale, Cottonwood Springs, Shafer's Well, and Mecca, near the north shore of the Salton Sea, but inquiries should be made as to the state of the roads before venturing on this extension. Time needed, one day the round trip by automobile to the Keyes Ranch or Twenty-nine Palms (the latter being 136 miles, round trip).

Murray Cañon, the best part of which is included in the area of the Palm Cañon National Monument, is a picturesque cañon opening westward just to the south of Andreas Cañon (q. v.). It has many fine palms and some interesting rock formations, and provides a convenient and agreeable short trip or picnic place. There is a fair automobile road leading into the cañon. A small stream of fair water runs in winter and spring.

Painted Cañon or Red Cañon is a remarkable ravine in what are locally called the Mud Hills, on the northeast side of the Coachella Valley. It

opens about five miles north from Mecca, and thus is about forty-three miles from Palm Springs. The features of the cañon are the brilliant coloring of the walls in places, and the height and verticality of the cliffs. The approach to the cañon, and its floor, are sandy and likely to be troublesome for automobiles. A small flow of water may be found two or three miles up, but this is not dependable. Time needed, one day by automobile.

REFER to "Salton Sea" and "Hidden Spring Cañon" trips, in same general locality.

Palm Cañon. This cañon, the lower and most accessible part of which, with some similar country adjacent, has been recently (1922) set aside as a National Monument, may well be termed the most notable point of Our Araby's scenery, and it has been not a little "written up" and pictured in magazine and newspaper articles. It opens about seven miles south of Palm Springs, at the very end of the arm of desert into which Andreas and Murray Cañons also debouch. An automobile road runs to the mouth of the cañon, which is a rocky, winding ravine, strikingly picturesque, crowded with palms to the number of, probably, thousands. A good stream of water flows in the cañon, and greatly enhances its charm.

NOTE—A more extended reference to this unique and beautiful spot will be found under the division-heading "Palm Cañon National Monument."

The Pines and Palms Trail is a direct route to the mountain resort of Idyllwild on San Jacinto Mountain. It leaves the Palm Cañon road at a point just beyond the Government Experiment Station, and climbs by steep but not excessive grades, reaching about 8000 feet at one spot. Water will first be found at "Avispas," 2000 feet (two hours), then at Tahquitz Creek, 6000 feet, which should be the noon stopping-place. Thereafter the trail is through virgin forest of pine, fir, and cedar (two hours to the highest point, whence it drops abruptly to Idyllwild). Thus the through trip may be made on horseback in one day. Magnificent panoramic views of the desert and the Salton Sea are obtained, and in late spring a great display of blossoming mountain plants—wild lilac, yucca, manzanita, etc. Time needed, twelve hours, allowing one hour's rest.

NOTE—It is unwise to make this trip alone, and a safe, trail-broke horse, well shod, is necessary.

A pleasant short round-trip may be arranged by taking this trail as far as a point above

"THE MOONLIGHT SONATA"

From a painting by Mr. Carl Eytel, Palm Springs

Andreas Cañon giving a fine view of the palisade cliffs and the desert, returning thence by a trail which branches off to the left (south) and descends to the cañon, whence there is a road to Palm Springs. (See Andreas Cañon trip.)

The Salton Sea, of which much has been written, is really a great lake formed by the overflow of the Colorado River. As a geographical accident, so to speak, of some note it is worth a visit, as well as for its scenic features and for its interest as a purely desert lake and an example of geological phenomena. Its nearest point to Palm Springs is the northern shore, which is a mile or two from the town of Mecca, thirty-eight miles down the valley. Good camping-places by the "sea," with fair water, are at Fig-tree John Springs and Fish Springs, directions for which can be learned at Mecca. Time needed, one day by automobile.

REFER to "Hidden Spring Cañon" and "Painted Cañon" trips, in same general locality.

The Sand-Dunes. A trip to the big dunes will be worth the visitor's while, either the high dunes six or eight miles directly northeast of Palm Springs or the wide expanse of smaller dunes which lie near and to the left of the road as one goes down the valley, say sixteen miles

out. The view is memorable among these great sand-masses, which realize one's idea of Arabia and the Sahara. A picnic here will be a novelty. Needless to say, no water can be expected among the dunes. Time needed, one day horseback.

Seven Palms is a small natural oasis on the open desert, about seven miles north and a little east of Palm Springs. It makes a pleasant horseback trip (or walk in cool weather), and may be reached by taking the old sandy road to Garnet Station and thence by a trail skirting the north edge of the Garnet Hills; or it can easily be found by striking across country toward the northerly point of the big dunes, looking out for the palms which will be in sight before the railroad is passed. The attractions are the palms, which are charmingly grouped, and the fine views of the mountain peaks to the southwest and northwest. There is water in plenty, but of poor quality. Time needed, two hours horseback.

Snow Creek Cañon opens to the southwest opposite Whitewater Station, and is easily reached by following the stage-road to that point, whence a plain road leads into the cañon. A good stream of water flows all the year, and fair trout-fishing may be had in it in the season. In a side cañon on the south of the main cañon

near its mouth there is a group of palms which is interesting as marking the westerly limit of the tree's growth. A branch road on the south side of the cañon leads to Snow Creek Falls, which are worth visiting when much water is coming down. Time needed, one to two hours by automobile.

Tahquitz Cañon (named for the evil spirit of the Cahuillas) is marked by a striking break in the mountain wall just to the south of Palm Springs. It is the favorite resort in the neighborhood of the village, the popular route being the foot-path along the bank of the Tahquitz ditch, which follows the base of the mountain. The main feature of interest for most people is the waterfall, which after heavy rains is quite impressive; but the rock scenery, the cacti, and the outlook from the cañon portals are all well worth notice. There are two trails worth exploring, an upper and a lower. Automobiles can take a road (fair) just south of the village going to the mouth of the cañon. Only the lower part, as far as the fall, is accessible without hard and even dangerous climbing: a fatal fall occurred recently.

Thousand Palm Cañon lies to the east and somewhat south of Palm Springs, being on the opposite side of the valley and opening into the

foothills of the San Bernardino spur. It is hardly accessible by automobile, but provides a fine day's horseback trip by striking across country through the dunes, crossing the railroad at Edom and continuing east by a middling road. The cañon contains remarkable groves of palms. Water of fair quality has been developed and is found near the mouth. As the distance from Palm Springs is about fifteen miles, and the country not easy, the trip can best be taken as a one-night-out expedition, but it is not too much for a return the same day if an early start be made.

Two-Bunch Palms is a double group of palms picturesquely placed on a bench at the foot of the hills three or four miles north of Seven Palms. It can be reached by continuing north across country from that place (q. v.), being easily found by looking out for the palms, which soon come in sight. The spot commands fine views of the open desert and the mountains. There is a spring of good water. This makes an enjoyable all-day's horseback picnic trip, Seven Palms being taken on the way. Time needed, a good three hours each way.

The Vandeventer Trail starts from near the foot of Palm Cañon (a little to the east) and climbs to the high plateau known as Piñon Flat.

It is a long trail of about twenty miles following roughly the dividing line between the outlying spurs of San Jacinto and Santa Rosa Mountains. About halfway of the trail is a spot called Little Paradise, which is practically the only place where camp can be made in this rough piece of country, also the only spot where one may rely on getting water (in a small *ciénaga,* or marsh, not easily found). The trip to this point and return may be made on horseback in one long day.

Whitewater Cañon opens to the north from Whitewater Station, which is nine miles by the stage-road from Palm Springs. It contains nothing of special interest, but there are a few palms, also good water, and fair trout-fishing may be found in the season if one goes far enough in the cañon, up which there is a road for a considerable distance. By making the trip on horseback, across country, other places may be taken *en route,* viz.: Seven Palms and the Devil's Garden, which makes it well worth while. Time needed, one long day horseback.

IX. FLORA AND FAUNA

A LARGE element in the attraction of Our Araby lies in the novelty of its animal and vegetable life. The former is a matter principally for naturalists, who find interest in noting the variations from type as regards habits, color, size, etc., wrought by special conditions among the mammals, birds, and reptiles of the desert. Yet one need not be a scientist in order to appreciate the humors of, for instance, the jolly little hairy-tailed desert mice who have chummed up with me by many a camp-fire, where they equally amused and amazed me by taking headers into the hot ashes at every opportunity, as though the thought of being baked alive was irresistible. This, too, is the place to enjoy the antics of that fine joker and gymnast, the road-runner, of whom strange tales are told, yet none too strange to seem credible to his admirers.

There would be little value to anyone in printing here a detailed list of the birds and animals found in our territory. Such a list would run into hundreds of items (of rats, mice, gophers,

or lizards, for instance, many different kinds would need to be noted, as well as of sundry birds), and without the aid of colored illustrations it would be all but worthless to the general reader, even if lengthy descriptions and measurements were given. A brief enumeration of the birds, mammals, and reptiles is given below, regarding which it should be borne in mind that not only the immediate neighborhood of Palm Springs but also the cañons and higher ground within a radius of some miles are included in the territory covered. This information is drawn from two publications of the University of California, viz.: "An Account of the Birds and Mammals of the San Jacinto Area of Southern California," by J. Grinnell and H. S. Swarth, and "The Reptiles of the San Jacinto Area of Southern California," by Sarah Rogers Atsatt: both published by the University of California Press, Berkeley, California. To these the reader who desires complete data is referred.

MAMMALS

Bat, two or three species
Chipmunk, Antelope
Cottontail rabbit
Cougar (Panther, Puma, Mountain-lion)
Coyote
Deer, Mule
Fox, Kit and Gray
Gopher, two species
Ground-squirrel, two species
Jackrabbit
Kangaroo-rat, two or three species
Mouse, various species
Pocket-mouse, two or three species
Sheep (Bighorn)
Skunk, two species
Wildcat (Lynx)
Wood-rat, White-footed and Brown-footed

BIRDS

Bluebird, Western
Bush-tit
Buzzard (Turkey vulture)
Chat, Long-tailed
Coot (Mud-hen)
Dove, Mourning
Duck, two or three species
Eagle, Golden
Falcon, Prairie
Flycatcher, two or three species
Gnatcatcher, two species
Goldfinch, two or three species
Grosbeak, Black-headed and Blue
Hawk, several species
Heron, Night
Hummingbird, several species
Jay, Piñon and California
Lark, Horned
Lark, Meadow
Linnet (House finch)
Mockingbird
Nighthawk, Texas
Oriole, two or three species
Ouzel (Dipper)
Owl, two or three species
Pewee, Western Wood
Phainopepla
Phoebe, Say and Black
Plover, Killdeer
Poor-will, Dusky
Quail, three species
Raven, Western
Roadrunner
Robin, Western
Shrike (Butcher-bird)
Snipe, Wilson
Sparrow, many species
Swallow, two or three species
Swift, White-throated
Thrasher, Leconte
Towhee, two or three species
Verdin
Vireo, two or three species
Warbler, several species
Woodpecker, Cactus and Red-shafted (Flicker)
Wren, two or three species
Yellowthroat, Western

NOTE: The California Condor, one of the greatest of flying birds, has within only the last few years vanished from this region.

REPTILES

Lizards, various, including the Chuckwalla and Horned-toad.
Snakes: Garter, Gopher, Rattlesnake, Red-racer, Sidewinder.
Tortoise.

* * * * *

A much larger number of people are interested in the desert plants, which offer the ad-

vantage of being always on view, than in the animal life, which must be studied under difficulties. Many of the desert growths are strange enough to challenge attention at first sight: others steal into one's notice or affection by virtue of some quaintness or beauty of blossom, or by some trait of the useful or unexpected. Detailed descriptions of such are out of the question here, nor would descriptions, without expensive colored illustrations, be much to the point. The best that is possible in this small book is to transcribe from my larger volume, "California Desert Trails," a fairly complete list of the desert plants, the brief notes on which will serve to identify a good many of them. The "Western Wild Flower Guide" of Mr. Charles F. Saunders (an invaluable manual for anyone interested in California's wild flowers) and the "Field Book of Western Wild Flowers" of Miss Margaret Armstrong in collaboration with J. Thornber, both of which are illustrated, include a fair number of the noticeable desert flowers, and will be found useful for reference.

X. NOTICEABLE PLANTS OF THE DESERT

Botanists must kindly overlook the lack of exactitude in these descriptions, which are necessarily brief and in which technical terms have purposely been wholly avoided.

It should be borne in mind that a number of plants may be met on the desert, especially about settlements or cultivated areas, that are not native there. A few of these, such as are most likely to come under observation, are included below. If there seem to be omissions in the following list, the explanation may be that the plants in question do not properly come under desert classification.

NOTE: Several of our gray desert plants, particularly the common Incense-bush (*Encelia farinosa*), are loosely termed "Sage-brush," but the plant referred to by Western story-writers under that name is *Artemisia tridentata*, which is a native of the higher dry plains but is not found on our low-lying desert.

Abronia aurita. Sand Verbena. (Four o'clock family.) (Not really a verbena, but somewhat like that plant in its flowering.) A low, trailing, sticky, soft-stemmed plant, with gray-green leaves and close clusters of fragrant, rosy-purple flowers. Blooms in mid-spring.

Acacia greggii. Cat-claw, Uña de gato. (Pea family.) A bush up to 10 feet high, crowded with small sharp thorns, common in cañons and on hillsides: often mistaken for a small mesquit, the leaves being like those of that tree but smaller. Flower a yellowish "spike" (resembling a pussy-willow catkin): fruit a pod, often curiously twisted. Blooms in early summer.

Adenostoma sparsifolium. Red-shank, Bastard cedar, Chamiso, Yerba del pasmo. (Rose family.) A tall, fragrant bush with red, shreddy bark and fine, stringy foliage. Found in the mountains bordering the desert, not widely distributed. Flowers small, white, profuse. Blooms in late spring.

Agave deserti. Wild Century-plant, Maguey, Mescal. (Amaryllis family.) Leaves blue-gray, very large, succulent, with strong prickles on edges and a thorn at apex, starting from the ground. Flower-stalk 8 or 10 feet high, bearing many sets of clustered, yellow, bell-shaped flowers. Common in parts of the desert mountains. Blooms in mid-spring.

Amsinckia spectabilis. Fiddle-head, Zacate gordo. (Borage family.) A very common, small, hairy, slender-stemmed plant, with narrow leaves and small orange flowers on stalks that curl at the tip. Blooms in early and mid-spring.

Anemopsis californica. Yerba mansa. (Lizard-tail family.) A low, rank-growing plant found only in damp places. Leaves large and coarse on reddish stalks: flowers large, white, with protruding conical centre. Blooms in mid-spring.

Aphyllon cooperi. Cancer-root. (Broomrape family.) A low, succulent plant, somewhat like a stalk of asparagus, bearing a number of small, purplish flowers. The plant is a parasite, growing on the roots of other plants. Not common. Blooms in late summer.

Argemone hispida. Thistle poppy, Cardo, Chicalote. (Poppy family.) A prickly, gray or bluish leafed, thistly-looking plant, 1 or 2 feet high, with large, fragile flowers, white with yellow centre. Blooms in mid- and late summer.

Aster orcuttii. (Sunflower family.) A hardy-looking plant of the driest desert cañons, 1 to 2 feet high; rather rare. Leaves stiff and paper-like, with prickly-toothed edges: flowers large and handsome, of lavender rays with yellow centre. Blooms in early summer.

Astragalus coccineus. (Pea family.) A low plant with almost white stem and leaves and handsome cardinal-red flowers. Found in the desert mountains, but rare. Blooms in mid-spring.

Atriplex canescens. Salt-bush, Shad-scale. (Goosefoot family.) A good-sized roundish bush with small, grayish leaves, inconspicuous flowers, and tassels of striking, bright green seed-vessels. Blooms in early summer.

Atriplex hymenelytra. Desert holly. (Goosefoot family.) A stiff, shrubby plant 1 or 2 feet high, with whitish, holly-like leaves and inconspicuous flowers. Found in alkaline soil in dry cañons or on open desert. Blooms in mid-spring.

Atriplex lentiformis. Quail-bush. (Goosefoot family.) A large gray bush very common on silt or alkaline soil, up to 15 feet high, and usually of smooth, dome-shaped outline. Flowers inconspicuous. Blooms in mid-spring.

Baileya pauciradiata. Cotton-plant. (Sunflower family.) A small, loosely growing plant with pale gray-green stems, narrow whitish woolly leaves, and small, lemon-yellow flowers of only a few outer petals. Blooms in mid- and late summer.

Bebbia juncea. (Sunflower family.) A roundish, dark green bush a foot or two high, with many slender, almost leafless stems and numerous small, yellow, fragrant flowers. Blooms throughout summer.

Beloperone californica. Chuparosa. (Acanthus family.) A good-sized bush, almost leafless, with purplish green, downy stems and handsome, dark red, tubular flowers. One of the earliest blooming desert plants, continuing all spring.

CACTI (Cactus family):—

Cereus engelmanni. Hedgehog cactus. A cluster of spiny short stems about the size and shape of cucumbers. Flowers very handsome, large, cup-shaped, bright rose-purple with plumy green stigma. Blooms in mid-spring.

THE BIZNAGA, A STRANGE INHABITANT OF THE GARDEN OF THE SUN

Cereus giganteus. Saguaro, Pitahaya. The giant cactus, common on the Arizona desert hills and found sparingly in California adjacent to the Colorado River. It is a tall, fluted column up to 60 feet high, usually with similar vertical offsets for branches. Flowers large, white: fruit crimson, edible. Blooms in mid-spring.

Echinocactus cylindraceus. Barrel cactus, Nigger-head, Biznaga (or Viznaga). A large, cylindrical, ribbed cactus up to 6 feet high (globular when young) covered with long curving spines. Flowers greenish yellow, cup-shaped, in a circle on the top. Blooms in mid-spring.

Mamillaria tetrancistrus. Pincushion, Strawberry, or Fish-hook cactus, Chilito. A small, round cactus, usually 1 or 2 inches in height and diameter, with a fuzz of fine white spines and a longer sharply hooked black one in the centre of each tuft. Flowers fleshy, lily-like, of rich claret color: fruit scarlet, finger-shaped, edible. Blooms in late spring.

Mamillaria sp. Like a larger growth of the foregoing, but somewhat irregular in shape and with waxy-white flowers. Blooms in late spring.

Opuntia basilaris. A flat-lobed, grayish cactus, velvety-looking, without noticeable spines but set with myriads of minute prickles. Flowers very handsome, large, cup-shaped, cerise, set in row on edge of lobe. Blooms in mid-spring.

Opuntia bigelovii. Cholla. A plant up to 6 feet tall, branching in stumpy arms, the whole plant densely clad with greenish white spines. The older parts turn almost black. The joints detach very easily and litter the ground. Flowers greenish white. Blooms in mid- and late spring.

Opuntia chlorotica. Prickly pear, Indian fig, Nopal. The common flat-lobed cactus of the coast, found also on the desert mountains. Flowers pale yellow, sometimes with reddish tinge, set in a row on edge of lobe: fruit dark red, edible, but covered with fine prickles. Blooms in mid-spring.

Opuntia echinocarpa. Deer-horn cactus. A very branching cactus up to 5 feet high, the joints pale green, very spiny though less so than *O. bigelovii.* Flowers greenish with bronzed look outside. Blooms in mid-spring.

Opuntia ramosissima. Similar in habit to *O. echinocarpa* but with much slenderer stems and fewer but stronger spines. Flowers small, brown. Blooms in late spring.

Cassia armata. Senna. (Pea family.) A low bushy plant with few and minute leaves and large heads of handsome yellow flowers, found in the desert mountains, but rare. Blooms in mid-spring.

Centaurea melitensis. Star thistle, Jocalote. (Sunflower family.) A small, usually single-stemmed plant a foot or so high, with narrow gray-green leaves. Flowers small, yellow: flower-heads very prickly. Blooms in midspring and summer.

Cercidium torreyanum. Palo verde, Lluvia de oro. (Pea family.) A tree up to 30 feet high, noticeable for the smooth green bark of the entire tree. Foliage small, scanty, and short-lived, so that the tree is usually bare: the twigs bear short thorns. Flowers profuse, bright yellow: fruit a pod. Blooms in mid-spring.

Chaenactis fremonti. Pincushion. (Sunflower family.) A small, slightly downy plant 6 or 8 inches high, with rather scanty, irregularly and narrowly divided, gray-green leaves, and several or many white, composite flowers, the outer petals cleft or fringed. Blooms in mid-spring.

Chilopsis linearis. Desert willow. (Bignonia family.) (Not properly a willow.) A small, willow-like tree, up to 20 feet high, usually found in washes. Leaves narrow: flowers handsome and plentiful, white marked with lilac and yellow, fragrant; fruit a pod, very long and narrow, remaining on the tree after the seeds have fallen. Blooms from mid-spring to autumn.

Chorizanthe brevicornu. (Buckwheat family.) A small, leafless, yellow-green plant, resembling the dry yellow moss sometimes found on pine trees. Flowers inconspicuous.

Coldenia plicata. (Borage family.) A hardy-looking, mat-like plant with small, deeply-veined, dark green leaves and tiny white flowers. Blooms in mid-spring.

Croton californica. (Spurge family.) One of the commonest desert plants. A thin bush 2 or 3 feet high, with many slender straight stems and few light-gray oval leaves. The plant gathers into a goblet-shaped tuft as it dries. Flowers small, yellowish. Blooms from late spring to late summer.

Dalea:—the genus has been re-named Parosela, q. v.

Datura meteloides. Jimson weed, Tolguache (or Toluache). (Nightshade family.) A rank-growing plant 2 or 3 feet high, common on both coast and desert, with large, coarse, dark-green leaves and very large, white or pale lilac, trumpet-shaped flowers that open in the evening. Blooms from spring to autumn.

Dithyrea californica. Spectacle-pod. (Mustard family.) A small coarse-leafed plant found in sandy soil usually about bushes. Flowers small, fragrant, of four white petals. Blooms in early spring.

Encelia californica. (Sunflower family.) A stiff, bushy plant with dark-green leaves and brittle, woody stems, common on and near the base of desert mountains. Flowers bright yellow, with dark purplish centres, on straight stalks that project well above the rest of the plant. Blooms in mid-spring.

Encelia eriocephala. Sunshine. (Sunflower family.) A herbaceous plant of the open desert, up to 2 feet high, with somewhat hairy, rather scanty leaves, and large, bright golden-yellow flowers, the calyx noticeably whitened with hairs. Blooms in mid-spring.

Encelia farinosa. Incense bush, White brittle bush, Yerba de incienso. (Sunflower family.) One of the commonest of desert plants in the neighborhood of mountains, in form a compact rounded bush 2 to 3 feet high. Leaves silver-gray, firm in texture: flowers like those of *E. californica* but with yellow centres. The plant exudes drops of amber-colored gum. Blooms in mid-spring.

Ephedra californica. Desert tea, Canutillo. (Gnetaceae.) A shrub 2 to 3 feet high, entirely composed of straight, smooth, dark-green stems without leaves. Flowers small, yellowish, fuzzy, at intervals along the stems.

Eremiastrum bellioides. Desert star. (Sunflower family.) A small prostrate plant, hardly noticeable except for its pretty, daisy-like flowers, borne on radiating horizontal stems: leaves scanty, linear. Blooms in mid-spring.

Eremocarya micrantha. (Borage family.) A small, slender, gray herb with small narrow leaves and tiny white flowers. It dries to a whitish, woolly-looking little plant that is greedily eaten by horses. The root yields a bright madder stain. Blooms in early spring.

Eriodictyon tomentosum. Yerba santa. (Waterleaf family.) A bush 5 or 6 feet high, found in cañons, with narrowish, gray-green, woolly leaves and clusters of lavender funnel-shaped flowers. (It is the coast species, *E. glutinosum,* or *E. californicum,* with smooth, dark-green, sticky leaves, that was so highly valued for its medicinal properties by the Spanish Californians.) Blooms in late spring.

Eriogonum inflatum. Bottle plant, Desert trumpet. (Buckwheat family.) A plant up to 3 feet high, with a few slender, straight, straggling stems that end in elongated swellings. Leaves heart-shaped, growing only at base: flowers very small, yellowish, on hair-like stems. Blooms in mid-spring.

Eulobus californicus. (Evening primrose family.) A slender, straight, spindling plant, a foot or so high,

with small yellow flowers and very narrow straight seed-vessels. Blooms in late spring.

Euphorbia polycarpa. Rattlesnake weed, Golondrina. (Spurge family.) A flat-growing, mat-like plant with radiating reddish stems and small, roundish, bronze-green, white-edged leaves. Flowers very small, white or pinkish. Blooms in late spring.

Fagonia californica. (Caltrop family.) A low, open-growing plant found on rocky desert hillsides, with few small, triply-divided leaves, slender spines, and many pretty, star-shaped, pale magenta flowers. Blooms in mid-spring.

FERNS:—These are naturally rare in desert regions, and are found only along the bases of the mountains, where falls the greater part of the little rain that occurs in this arid territory. Besides those named there are a few others which are very rarely found.

Cheilanthes viscida. Lip fern. Fronds elongated, dark green, very much dissected, and covered with a sticky secretion. Found usually in crevices of the rocks in cañons.

Notholaena cretacea. Cloak fern. Fronds triangular in outline, moderately divided, and thickly coated with a white powder. When dry they roll up into brittle balls, but when rain comes they unroll and resume life. This and the species next named usually grow under the edges of rocks and boulders on hillsides, or on the sides of cañons.

Notholaena parryi. Cloak fern. Fronds elongated, rather narrow, pinnately divided, the upper surface densely clothed with whitish hairs, the lower brown and woolly.

Fouquieria splendens. Candle wood, Ocotillo. (Tamarisk family.) A unique plant composed of a number of long gray thorny canes diverging at ground: usually 6 or 8 feet high but sometimes double as much or over. Leaves small, dark-green, and short-lived: flowers scarlet, tubular, in a long spike at ends of canes. Blooms in early spring, or at any time when sufficient rain has fallen.

Franseria dumosa. Burro-weed. (Sunflower family.) A stiff, brittle, rounded, gray bush, common on and near the base of desert mountains. Leaves small, gray-green; flowers yellowish, in close spikes. The plant has a strong, somewhat turpentiny smell. Blooms in mid-spring.

GRASSES:—

Cynodon dactylon. Bermuda grass. Not properly a desert grass, but has become established in the irrigated areas. It is bright green and close-growing, with small, pointed leaves. It makes good emergency forage.

Distichlis spicata. Salt grass. A low-growing, pale green or gray grass, leaves in double rank, herring-bone style. It is very common, forming a close sod on moist, and especially on alkaline, soils. Animals will eat it when hard pressed.

Epicampes rigens. Basket grass, Zacaton. A tall, rigid, slender-stemmed, pale green grass forming large tussocks 2 to 4 feet high. It grows among rocks near streams, and on dry hills, and though poor fodder is valued by Indian women for basketry purposes.

Oryzopsis membranacea. Sand grass. A small, tussocky grass with slender stems 6 to 12 inches long, leaves bright green. It is found in sandy soil and makes good forage; also is valuable to the Indians for its edible seeds.

Panicum urvilleanum. A strong, coarse grass with rather stiff, pale green leaves a foot or more long. It grows in loose dry sand, and has little, if any, forage value.

Pleuraphis rigida. Blue-stem, Galleta. A coarse, almost woody-stemmed, stiff grass growing in large dense clumps 2 to 4 feet high, and in the driest of soils. The stems appear dry and dead except at the tips, which are pale bluish green. It is an excellent forage-plant.

Sporobolus airoides. Zacaton. A coarse, stiff bunch-grass 2 or 3 feet high, flowering in loose, spreading panicles.

Tridens pulchella. A low, tufted grass 2 to 6 inches high, common on dry hills and mesas, often among rocks, with small dense panicles of blossom in which the tips of the flower-bracts are tinged with purple. It has practically no forage value.

Hesperocallis undulatus. Desert lily, Ajo. (Lily family.) A true lily, with narrow, ribbony, crinkle-edged leaves lying flat at the base of the straight flower-stem, which is about 2 feet high. Flowers 3 or 4 inches in diameter, fragrant, white with green veining on back of petals, several to a stem. Blooms in mid-spring.

Hibiscus denudatus. (Mallow family.) A shrub 1 or 2 feet high, with deeply-veined gray-green leaves and large, handsome flowers, white with dark purple "eye." Blooms in late spring.

Hoffmanseggia microphylla. (Pea family.) A tall, loosely-growing plant found in dry desert cañons. Usually a number of the slender cane-like stems grow in a clump together. Leaves twice compound, of numerous minute leaflets: flowers yellow, in an open elongated cluster.

Hofmeisteria pluriseta. (Sunflower family.) A small bushy plant growing in the crevices of rocky cliffs, the stems slender but woody, and the leaf-blades like a flattened tip on the leaf-stems. Flowers in small heads, abundant but not showy.

Hymenoclea salsola. Salt bush. (Sunflower family.) A common, large, grayish bush with linear leaves. Flowers very small, greenish, in profuse clusters at end of twigs. Blooms in late spring.

Hyptis emoryi. Wild lavender. (Mint family.) A tall bush of the lower mountain slopes, up to 10 feet

high, with rather straight stems usually branching from the ground. Leaves roughish, gray-green: flowers small, downy, numerous, lavender colored, in loose spikes. The leaves and blossoms have a lavender-like smell. Blooms from mid-spring to autumn.

Isocoma acradenia. (Sunflower family.) A small shrub with narrow, dark-green leaves and small, yellow flowers; common and widely distributed. Blooms in early spring.

Isomeris arborea. Bladder-pod. (Caper family.) A vigorous, ill-smelling shrub 4 to 8 feet high, with light-green, triply-divided leaves and clusters of showy, yellow flowers. The seed-vessel is a large pale-green pod. Blooms from earliest to late spring.

Krameria parvifolia. (Pea family.) A common, rather thorny bush of the lower mountain slopes, 2 feet or so high, with few, inconspicuous leaves and purplish gray, much-interlaced stems and twigs. Flowers deep claret color: seed-vessels small, round, prickly. Blooms in mid- and late spring.

Larrea glandulosa. Creosote bush, Greasewood, Hedi-ondía. (Caltrop family.) The commonest and most widely distributed shrub of the desert, growing up to 12 feet high, in strong, somewhat brittle stems diverging from the ground. The branches and twigs are regularly marked with rings. Leaves small, glossy, bright dark green, sticky, with strong tarry odor: flowers profuse, bright yellow, maturing to small, round, woolly seed-vessels. Blooms from mid-spring to mid-summer.

Lycium andersonii. (Nightshade family.) A strong, thorny bush usually 4 or 5 feet high, but in open desert a low patch of stiff intertangled stems. Leaves small, gray: flowers few and small, tubular, pale lilac: fruit a small, transparent, edible (but insipid) red berry. Blooms in mid-spring.

Malacothrix glabrata. (Sunflower family.) A small plant with a tuft of narrow, almost thread-like leaves, from which rise one or more straight, slender flower-stems each bearing one large, pale yellow, dandelion-like blossom, often with a speck of red at the centre. Blooms in mid-spring.

Malvastrum rotundifolium. Five-spot. (Mallow family.) A small, upstanding, hairy plant, often branching, with reddish stems, roundish leaves and handsome cup- or globe-shaped flowers of pale lilac with a carmine spot at base of each of the five petals. Blooms in late spring.

Martynia proboscidea. Elephant's trunk, Devil's claw. (Bignonia family.) A rank, weedy plant, not common, with large, roundish leaves and a few handsome flowers, white with yellow and purple markings. The seed-vessels are disproportionately large, from 6 to 10 inches long, curved and tapering, splitting as they dry into two long, springy horns connected at base. Blooms in summer and into autumn.

Mentzelia involucrata. (Loasa family.) A plant of the dry cañons or open desert, a foot or more high, with whitish stems, narrow, hairy, saw-edged leaves and very handsome, large, satiny flowers, white or creamy with fine vermilion pencilling. Blooms in mid-spring.

Mimulus bigelovii. Monkey flower. (Figwort family.) A tiny plant only 2 or 3 inches high, with dark green, sticky, somewhat hairy leaves and flat-rimmed, funnel-shaped flowers, rosy or crimson with yellow centre, which are quite large for the size of the plant. Blooms in mid-spring.

Mirabilis aspera. (Four o'clock family.) A small, bushy, rather downy plant, with slender branching stems and grayish-green leaves, found near the base of mountains. Flowers white, primrose-like, opening at evening. Blooms in late spring.

Mohavea viscida. (Figwort family.) A small, sticky, hairy plant with straight, usually single stem and

narrow leaves. Flowers large, deep cup-shaped, satiny, greenish-creamy with small purple dots: petals saw-edged. Blooms in mid-spring.

Nama demissum. (Waterleaf family.) A pretty little mat-like plant, with narrow, club-shaped leaves, sending out spoke-like arms at ends of which are small carmine flowers. Blooms in mid-spring.

Navarretia virgata. (Phlox family.) A small, dried-out looking plant of the open desert. Leaves inconspicuous, forked, spiny-looking: flowers numerous, pale bright blue. The last of the noticeable spring flowers, continuing into early summer.

Nicotiana bigelovii. Coyote tobacco. (Nightshade family.) A many-stemmed plant, 1 to 2 feet high, with dark-green leaves and white, narrow-tubular flowers. Blooms midsummer to autumn.

Nolina parryi. (Lily family.) A yucca-like plant of dry mountain-sides, not common. Leaves long, narrow, spiky, bluish green: flowers whitish, in a compact elongated cluster 2 or 3 feet long, on a tall stem rising from the centre of the sheaf of leaves. Blooms in mid-spring.

Oenothera cardiophylla. (Evening primrose family.) A slender, downy, single-stemmed plant, usually less than a foot high, with long-stalked, heart-shaped, saw-toothed leaves, and small, pale yellow blossoms which turn reddish as they age. Seed-vessels are long club-shaped. Blooms in early spring.

Oenothera gauraeflora. (Evening primrose family.) A small plant with straight, stiff, usually single stem bearing a cluster of small pinkish flowers. The bark is white and shreddy, the leaves long and narrow, and the seed-vessels tongue-like and curved. Blooms in late spring.

Oenothera pallida. Sun-cups. (Evening primrose family.) A slender-stemmed plant with rather narrow, pointed and toothed leaves. Flowers bright yellow: seed-vessels curly with double twist. Blooms in mid- and late spring.

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Oenothera scapoidea. (Evening primrose family.) A small plant with single stem 6 to 8 inches high, many small leaflets scattered along the leaf-stems, and a cluster of little pinkish flowers. One of the earliest spring flowers but blooms on into early summer.

Oenothera trichocalyx. Evening primrose, Yerba salada. (Evening primrose family.) A low, strong, rather spreading plant with large, rather narrow, grayish green leaves and very large fragrant flowers, white (pink when faded) with sulphur-yellow centres, opening at night. Blooms in mid- and late spring.

Olneya tesota. Ironwood, Palo fierro (or hierro). (Pea family.) A trim tree, up to 20 feet high, with thorny twigs and grayish green leaves composed of many leaflets. Flowers dull blue, like small pea-blossoms: fruit a pod. Blooms in early summer.

Palafoxia linearis. (Sunflower family.) A common, straggling plant of many slender stems up to 3 feet high. Leaves few, narrow, dark gray-green: flowers lavender or pinkish, tubular, with long calyx. Blooms almost all the year.

Parosela (formerly Dalea) californica. (Pea family.) A stiff, woody bush, up to 3 feet high, with clear yellowish bark. Leaves small, gray, narrowly divided: flowers plentiful, resembling small pea-blossoms, dark bright blue. Blooms in mid-spring.

Parosela (formerly Dalea) emoryi. Dye-weed. (Pea family.) A gray, weedy bush 2 or 3 feet high, easily identified by the orange stain which the flower-heads leave on hands or clothing. Leaves small, composed of several leaflets: flowers tiny, purple, in small close clusters. Blooms mid-spring to late summer.

Parosela (formerly Dalea) mollis. (Pea family.) A small, grayish, downy plant with much-divided leaves and tiny, rosy-purple flowers in woolly-looking clusters. Blooms in late spring and early summer.

Parosela (formerly Dalea) schottii. (Pea family.) A large, rather thorny bush, up to 6 feet high. Leaves

very narrow, dark bright green: flowers resembling small pea-blossoms, dark brilliant blue. Blooms in mid-spring.

Parosela (formerly Dalea) spinosa. Smoke-tree, Indigo-bush. (Pea family.) A small tree, up to 15 feet high, common in washes. Practically leafless, the tree is a mass of whitish spiny twigs. Flowers small but very abundant, resembling pea-blossoms, dark brilliant blue. Blooms in early summer.

Pectis papposa. Chinch-weed. (Sunflower family.) A low, small, rounded plant, vividly green, with bright yellow flowers. It has a strong, rather unpleasant smell. Blooms throughout summer.

Perityle emoryi. (Sunflower family.) A small plant found growing among rocks. Leaves notched irregularly: flowers white, daisy-like. Blooms in mid-spring.

Petalonyx thurberi. Sandpaper-plant. (Loasa family.) A low, rounded, whitish bush with a peculiar roughness to the touch. Leaves small, light-green, scaly: flowers profuse, light yellowish green. Blooms in late spring.

Phacelia campanularia. Canterbury bell. (Waterleaf family.) A small, usually single-stemmed plant, with roundish, rather hairy leaves and large, deep-purple, bell-shaped flowers. Found (on the desert) only in cañons or near water. Blooms in mid-spring.

Phacelia sp. Wild heliotrope, Vervenía. (Waterleaf family.) A straggling, soft-stemmed, rather hairy plant, up to 4 feet high, with small, compound leaves and profuse, heliotrope-blue flowers in curling clusters. Blooms early to late spring.

Philibertia linearis. Twining milkweed. (Milkweed family.) A creeper found on willows or other strong supporting plants, growing up to 6 or 8 feet high. Leaves few and grayish; flowers pale lavender, in a close rosette. Blooms in mid-spring.

Phoradendron californicum. Mistletoe. (Mistletoe family.) A parasite very common on the mesquit and

other leguminous desert trees. It is leafless, but has numerous small pink or white berries.

Phragmites communis. Carrizo. (Grass family.) A reed-like grass or cane, up to 10 feet high, with long, narrow leaves, found in damp places on the open desert.

Plantago patagonica. Desert plantain. (Plantain family.) A small downy plant, up to 6 or 8 inches high, with long, narrow, silky gray leaves from which rise several slender straight stalks each bearing a scaly-looking flower-head. Blooms in mid-spring.

Pluchea sericea. Arrowweed, Cachanilla. (Sunflower family.) A straight-growing, cane-like plant, up to 10 feet high, abundant in damp places both in cañons and on open desert. Leaves gray, narrow, willow-shaped: flowers small, clustered, dull pinkish purple. Blooms in midsummer.

Prosopis glandulosa. Mesquit. (Pea family.) A wide-branching, thorny tree, up to 20 feet high, found singly or in thickets. Leaves of many leaflets, resembling small leaves of the pepper-tree: flowers yellowish "spikes" (like pussy-willows): fruit long, narrow pods, in clusters. Blooms in late spring.

Prosopis pubescens. Screwbean mesquit, Tornillo. (Pea family.) A smaller and slenderer tree than the foregoing, favoring alkaline soil. Leaves and flowers similar to the above, but somewhat smaller: fruit twisted pods, like screws, in clusters. Blooms in late spring.

Prunus eriogyna. Wild apricot. (Rose family.) A large, branching, thorny bush, up to 8 feet high, found in some desert cañons. Leaves small, bright light green; flowers numerous, white, like small plum blossoms: fruit reddish yellow when ripe, with a small quantity of sweetish pulp. Blooms in early spring.

Psathyrotes ramosissima. (Sunflower family.) A low, compact, rounded plant with light-gray, downy

stems and leaves and small, yellow flowers. Blooms in late spring.

Purshia tridentata. Bitter-brush. (Rose family.) A strong, woody bush 5 or 6 feet high, with a casual resemblance to the common creosote bush (*Larrea*) but rare. Leaves small, of several narrow segments: flowers bright yellow. Blooms in late spring.

Rafinesquia neo-mexicana. (Sunflower family). A slender plant usually found in shelter of shrubs, seldom over a foot high, with a few small clasping stem-leaves, the lower leaves longer and toothed. Flowers in form like a dandelion, but white, veined on back with rose. Blooms in mid-spring.

Rhus ovata. Sumac, Mangla. (Sumac family.) A large, compact, roundish bush or small tree, native to coast regions but sometimes found in or near desert cañons. Leaves dark bright green, glossy, suggesting those of the laurel: flowers white or pink, profuse, in very close clusters: fruit a reddish sticky berry. Blooms in late spring.

Salazaria mexicana. Bladder-bush. (Mint family.) A roundish bush, up to 3 feet high, rather rare. Leaves small, oval, grayish: flowers showy, white and purple; the calyces become inflated and look like little round bladders. Blooms in early summer.

Salvia carduacea. Thistle-sage. (Mint family.) A thistly-looking plant a foot or so high, with large, prickly, grayish, woolly leaves and handsome light-purple flowers in round-headed clusters. Blooms in late spring.

Salvia columbariae. Chia. (Mint family.) A small plant a foot or so high, usually with a single stiff stem rising from a few deeply-cut leaves and bearing one or more clusters of small purple flowers closely grouped in rings. Blooms in mid-spring.

Sesbania macrocarpa. Wild hemp. (Pea family.) A straight, slender, spindling plant, up to 8 feet high,

found in damp ground in Imperial Valley and near the Colorado River. Flowers yellow, pea-like. Blooms in mid- and late summer.

Simmondsia californica. Goat-nut, Quinine-plant, Jojoba. (Box family.) A strong shrub, up to 6 feet high, with gray-green, oval leaves somewhat like those of the manzanita. Flowers whitish, inconspicuous: fruit a small, brown, edible nut with smooth, pointed husk. Blooms in mid-spring.

Sphaeralcea ambigua. Desert mallow, Wild hollyhock. (Mallow family.) A loose-growing plant, up to 3 feet high, with grayish stems and coarsely veined, roughly triangular leaves. Flowers numerous and striking, of a peculiar light-vermilion color. Blooms in mid-spring and early summer.

Stephanomeria exigua. (Sunflower family.) A low, slender-stemmed plant bearing a white starry flower something like that of the single pink. Blooms in mid-spring.

Stillingia annua. (Spurge family.) A very small but hardy-looking plant with stiff, saw-edged, sharply-pointed, light green, upright leaves. Flowers yellowish, inconspicuous, followed by nutlet-like seeds.

Suaeda ramosissima. (Goosefoot family.) A common, loose-growing bush of the open desert, 3 or 4 feet high, with very slender, bright-green, juicy stems that give a pink stain on being crushed. Leaves and flowers inconspicuous.

Trichoptilium incisum. (Sunflower family.) A small, almost white plant, with very woolly stems and leaves, and with small, composite, yellow flowers on long, slender stalks. Blooms in early summer.

Washingtonia filifera. Fan palm. (Palm family.) The native palm of the desert, found in many cañons and occasionally in the open desert, though never in dry soil. Up to 70 feet high. Fronds light-green, with

stringy filaments: flowers small, creamy, in long, drooping clusters: fruit a small hard berry, black and sweet when ripe. Blooms in early summer.

Yucca brevifolia. Joshua tree, Yucca palm. (Lily family.) A tree-yucca, up to 30 feet high, with stiff, strong arms and tufts of blade-like leaves, found in certain mountain and high mesa localities. Flowers whitish, bell-shaped, in large clusters, rather ill-smelling: fruit a short, thick pod which remains closed when mature and dry. Blooms in early spring.

Yucca mohavensis. (Lily family.) A small tree-yucca, somewhat branching, with tufts of very long, dagger-like leaves, found in similar localities to those inhabited by the foregoing. Flowers also similar: fruit a large blunt pod which becomes soft and edible when ripe. Blooms in late spring.

Yucca whipplei. Spanish bayonet, Quijote. (Lily family.) The common yucca of the coast mountains, with a very large spike of creamy, bell-shaped flowers on a tall, straight stalk rising from a sheaf of long, stiff, spiky leaves. Fruit becomes hard and splits open when ripe. Blooms in late spring.

XI. CLIMATE AND HEALTH

EARLY one morning in April a few years ago a party of four, of whom I was one, were leaving Beaumont for Palm Springs. We had come from the coast, two of my friends driving in a camp-wagon, the other being on horseback like myself. This was our fourth day out.

The weather was cold and cloudy as we left Beaumont, and a dash of rain spattered us as we raced through Banning, six miles on our road. It looked as if more were coming, so we who were on horseback halted a moment on the edge of town and put our ponchos on. From here we had a twelve-mile straight-away stretch down to the Whitewater Ranch. The clouds hung heavy and low on the great mountains to right and left, and at our two thousand feet of altitude we looked out from under the stormy canopy as from beneath a hood. The effect was highly theatrical. Below and far ahead, at the foot of the hollow scoop of the pass, lay a pale golden land, shimmering in sunlight under a sky of summery blue. It was like magic, or a dream, and we gazed with all our eyes; but on the moment an icy blast rushed down from Gray-

back and lashed us with a storm of hail. This, anyhow, was no dream. Hastily we mounted and dashed forward; but for an hour as we galloped down the pass we were alternately thrashed with chilly rain and pelted vigorously with hail: while all the time the golden land stretched away before us, smiling lazily in the sun. Suddenly, a mile or two below Cabezon, we rode out into glorious warmth. The rest was pure enjoyment. We lunched in pleasant shade of a desert willow at Whitewater Point and by early afternoon were at Palm Springs receiving a good Scots welcome from our old friend Doctor Murray. That night we stretched out luxuriously under the flowering grevilleas of the Brooks House, bathed in moonbeams and odor of orange-blossoms, lulled by the soft clatter of palm-fronds and an occasional somnambulistic outbreak from the night-herons roosting in the cottonwoods near the spring.

I have related this by way of illustration. It is an incident which could be duplicated a score of times any winter or spring. Day after day we residents and visitors of Our Araby may sit snugly in the sun, watching, like a show, the gloomy or angry moods of the Cloud King in his mountain fastnesses over San Bernardino, San Jacinto, and Santa Rosa, and rubbing our hands over the contrast. Night after night we may lie

A SHADY LANE AT PALM SPRINGS

out under a full hemisphere of stars, breathing air which Professor Van Dyke properly names "the finest air on the continent," with no thought of rheumatic or neuralgic imps lurking in fog or dew. Morning after morning we may wake to see San Jacinto's flank of dusky red turn suddenly to a mystery of rosy loveliness as the sun flashes up over the eastern wall of the valley—a thing which, though experienced a thousand times, I can never see without a feeling of being enchanted, or about to turn into a Maxfield Parrish.

But now to be more specific, for I wish to guard against the danger that lurks in "glittering generalities." Figures, as regards climate, do not tell everything, but they serve for a skeleton, and Government statistics are reliable, if nothing else. Here, then, are the U. S. Department of Agriculture's records of rainfall and temperature for a recent series of years (the official figures for the succeeding years are incomplete). The data are for Garnet (formerly Palm Springs) Station, six miles from the village, and therefore are not exact for the latter point; but they will serve fairly.

AVERAGE MONTHLY TEMPERATURES AT GARNET STATION, YEARS 1907 TO 1915 INCLUSIVE

	Jan.	Feb.	March	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Highest .	77	80	90	96	104	112	113	112	107	98	87	76
Lowest..	31	37	45	52	56	64	73	73	67	55	42	33
Mean ...	53	55	63	69	73	84	90	90	84	73	62	52

In the nine years the maximum temperature reached was 118°, in July '07 and May '10. The minimum was 18°, which was touched in a "record" cold spell in January '13: with that exception 26°, in December '11, is the lowest figure for the nine-year period, with 28° on three occasions for next lowest.

RAINFALL, inches:
1907, 4.80; '08, 3.50; '09, 5.50; '10, 3.94; '11, 4.83; '12, 5.66; '13, 3.88; '14, 7.87; '15, 5.71.
(Average for the nine years, 5.08 inches.)

It will be seen that Palm Springs' average annual rainfall is about five inches, which, small as it is, considerably exceeds that of localities only a few miles away on the open desert.* Heavy falls of rain and snow occur on the mountain which rises close behind us, and we come in for the fringe of these storms: besides which, the mountain acts as our trustee in general, collecting our winter income of moisture and dealing it out to us as we need it by means of the Chino and Tahquitz Cañon streams. (The village draws also on San Bernardino Mountain for part of its water-supply, which is brought many miles across the desert from Whitewater Creek.) Thus it arises that along with a sufficiency of

* The season of 1921-22 was a phenomenal one, with over 14 inches of rainfall at the village. All over the desert the winter rains were well above the average, and as a result the floral display in the spring of 1922 was something to be long remembered.

water (excellent water, too) our normal climate is the dry, sunny climate of the desert.

A remarkable range of temperature will be noticed in the figures given above—a natural feature of desert climates everywhere. (Even sleet has been seen at Palm Springs, but such a thing occurs only "once in a blue moon"). These wide variations occur not only between summer and winter but also between day and night temperatures, the explanation being, of course, the low rate of humidity (averaging 15 degrees), which is the usual condition. Through this dry air the sun's rays strike with a direct heat like that of a furnace, which, even when scorching, is never debilitating; and the moment the sun drops, the thermometer drops sharply with it. This gives us a conjunction of warm days with cool or even cold nights, and renders life, and even physical exertion, on the desert quite tolerable even in the heat of summer. Radiation is rapid, and shade may be depended on to yield coolness.

Naturally, with this condition, such a thing as fog is unknown. The sea-fogs of the coast are blocked by the high barrier of mountains (though in any case they very seldom reach so far inland as that). Once in a recent summer, indeed, by some meteorological freak, a fog which, probably, originated in the Gulf of Cali-

fornia, did for an hour or two invade Our Araby, but it ranks as a phenomenon. Dew also is a rarity, even with our clear night skies, so that sleepers-out may safely ignore the risk of damp.

As for wind, such affairs as sand-storms are not unknown, but they seldom occur, and are not to be thought of as the kind of thing that overwhelms travellers in the Sahara. Some discomfort may be entailed, and, to housewives, some work afterwards with broom and duster; but beyond that, a Palm Springs sand-storm amounts to a very mild adventure. At long intervals we are visited also by a freakish, gusty wind from the mountain, known—not affectionately—as a Tahquitz Twister. The word is then —Look out for your roof, especially if it be a canvas one. But, backed against friendly old San Jacinto, we are shielded from the worst assaults of the wind-demon, and we often learn with surprise from some one arriving in the village that there has been a "blow" on the unsheltered levels only a few miles away.

* * * * *

From what has been said above it will be gathered that Palm Springs offers special advantages to persons suffering from certain ailments. For many years physicians have been sending patients here, especially for lung and kidney affections. As regards tubercular pa-

tients, it should be noted that there is only a limited amount of accommodation available, so that it is very inadvisable for such persons to come to Palm Springs unless arrangements have been made for quarters.*

Good results have been found to follow the use of the water of the hot spring, both for bathing and drinking, in cases of kidney disease. Further, it would be hard to find better conditions than those reigning at Palm Springs for the cure or help of nerve ailments; and here, if anywhere, the factors of pure air, sunshine, quietude, and healthful surroundings in general may be counted on by those seeking to regain or reinforce their health.

Subjoined is the Government analysis of the water of the spring.

IONS	Milligrams per Liter
Metaboric Acid (BO_2)	trace
Silica (SiO_2)	44.8
Sulphuric Acid (SO_4)	37.3
Carbonic Acid (CO_3)	33.0
Bicarbonic Acid (HCO_3)	36.6
Nitric Acid (NO_3)	0.1
Chlorin (Cl)	25.0
Iron (Fe)	1.9
Calcium (Ca)	2.5
Magnesium (Mg)	0.7
Sodium (Na)	67.5
	249.4

Temperature—104°

* See footnote under following heading, "Accommodation, etc."

XII. ACCOMMODATION AND CONVENIENCES, AND HOW TO COME

THOUGH Palm Springs is strong for simplicity our visitors need fear no hardships: indeed, our leading hotel is apt to prove a surprise to guests who come with the thought of "putting up with things." It is not the intention of the writer to advertise any of the business concerns of Palm Springs; but for the information of intending visitors it should be said that the best accommodation is offered by the Desert Inn, while less expensive quarters may be found at one or two other places in the village. A number of pleasant small tent-houses are rented by Mrs. L. F. Crocker, and these again are supplemented by a few other houses of various sizes and rates of rental. Inquiries regarding quarters addressed to the Postmaster would be handed by him to the person most likely to be able to suit the applicant. Now and then one of the residents is willing to rent his or her comfortable house: in this case also the Postmaster would act as intermediary.*

* As stated under *Climate and Health,* the accommodation for persons suffering from tuberculosis is very

As for "modern conveniences," almost the only two items in that ever-growing category that are genuine necessities, viz., a piped water-system and electric lighting, Palm Springs possesses. As yet we are free of the everlasting jingle of the telephone, yet have the really useful telegraph at command. Daily train service both east and west, with its corollary of daily mail and news service, need hardly be specified: they may be taken for granted.

To conclude: we are well served with stores; possess a neat church, nominally Presbyterian, in which services are regularly held (there is also a Roman Catholic church on the Indian Reservation); our school is creditable; we are furnished with the indispensable garage, well appointed; and the services of an excellent physician are always at our disposal except during the very hot months of the year, when the white population is practically *nil.*

* * * * *

Travellers coming BY TRAIN should buy tickets not to Palm Springs but to WHITEWATER, which is the station at which the auto-stage meets the train. (The old Palm Springs Station, now

limited. There is a group of small but desirable cottages, known as *Las Solanitas,* reserved for such, but only early or arrested cases can be received. Application should be made by letter, in advance, to J. J. Kocher, M. D., Palm Springs, California.

renamed Garnet, is connected with the village only by a very poor road, not available for auto travel.) The distance to the village is nine miles, which is covered in half an hour. BY ROAD the route from the coast is via Pomona and Ontario to Riverside or San Bernardino: thence by either the Jackrabbit, the San Timoteo Cañon, or the Redlands road to Beaumont, Banning, and the main desert road through Cabezon and Whitewater, at which last-named point the Palm Springs road diverges, rejoining the State Highway farther down the valley.

FOR MAIL the proper address is Palm Springs, Riverside County, California.

TELEGRAMS take the same address.

EXPRESS packages and FREIGHT should be addressed: Palm Springs via Whitewater, California.

APPENDIX

HINTS TO MOTORISTS

[Quoted by permission of United States Geological Survey from "Suggestions to Travellers" in Water-Supply Paper 490—A., "Routes to Desert Watering Places in the Salton Sea Region, California," by John S. Brown: Washington, 1920.]

More people travel the desert now in automobiles than in any other way, although horses are not unknown and even foot travellers are sometimes seen. Low-geared trucks with large tires have an advantage in freighting or travelling very sandy roads. With an experienced desert driver the average car can travel almost any road that is passable for wagons. Without careful driving it may fail to get anywhere on a comparatively good road. Automobile parties should always carry a supply of spare tires and tubes. A vulcanizing outfit for making patches is especially desirable. A tire gauge is very useful, and an air pump and a jack are necessary.

Sand is the worst obstacle. . . . Fortunately it is less prevalent than popular fancy imagines. The average road consists of a pair of wheel ruts; and in sandy places it is essential to stay in these ruts. Leave them only to pass another vehicle and then keep two wheels of the car in a rut if the sand is bad. Parties attempting to pass on a sandy road can usually do so by helping push the autos if other means fail. Wheel ruts, if fresh, are easily traversed even in deep sand, but old ruts or wagon tracks make very difficult travelling for automobiles. On such roads if a car gets stuck it is often possible to back up and by getting a fresh start in one's own tracks break the road ahead through bad sand. A shovel is sometimes useful in short stretches for cleaning out covered ruts.

It is common practice in case of trouble in sand to deflate the tires. This gives the tire a greater bearing surface by allowing it to flatten out and increases the

effectiveness of a car's gearing by reducing the diameter of the wheel. There is danger of rim cutting by having the tires too soft; so that no more air should be allowed to escape than is absolutely necessary. No fixed rule is known, but for Ford cars a pressure of 35 or even 30 pounds was found safe and always gave good results. Tires are not damaged by running "soft" in sand, but they should be immediately pumped up when hard ground is reached, or they will suffer rim cuts, stone bruises, or blow-outs. The tire gauge is a necessity for judging the safe reduction of air pressure.

One great trouble in soft sand is that the wheels lose traction and spin, digging down and down into the sand. This is frequently brought about by attempting to start too suddenly. On the other hand, going too slowly when moving induces the wheels to spin. After a wheel has "dug in" it has to be "dug out" with a shovel, jacked up, and the hole surfaced with brush, canvas, or stones to give a bearing. Very effective use can be made of two strips of heavy canvas, say 30 feet long and 18 inches wide, for such difficulties. The strips must be thrust under the rear wheel, then laid lengthwise ahead in the ruts, and it is necessary to lift the front wheels and set them on the canvas to hold it down while the rear wheels pull. Otherwise the canvas is chewed up and "spit" out in the rear by the spinning wheels. Canvas solved the trouble of the worst sand for the Survey party without much recourse to brush or shovelling. Progress is slow, but nearly any bad place may be crossed in this manner. The use of canvas for occasional trips on well-travelled roads is seldom necessary. Most travellers, instead of using canvas, fill the ruts with broken twigs, brush, stones, or anything else available when they get stuck, but unfortunately the brush is usually thinnest where the sand is thickest. There are various devices on the market for pulling out automobiles which get stuck, and one of these may be a valuable part of the equipment. . . .

. . . A surplus of water over probable needs of men and automobiles should be provided. Oil and gasoline more than enough for probable needs should be taken, and it should be remembered that desert roads may require twice as much per mile as pavement.